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THE 1988 ECONOMIC REPORT OF THE PRESIDENT

HEARINGS

BEFORE THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ONE HUNDREDTH CONGRESS

SECOND SESSION

JANUARY 21 AND 22, FEBRUARY 19, AND MARCH 9 AND 15, 1988

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CONTENTS

WITNESSES AND STATEMENTS

THURSDAY, JANUARY 21, 1988

Page
Sarbanes, Hon. Paul S., chairman of the Joint Economic Committee: Opening statement 1
Proxmire, Hon. William, member of the Joint Economic Committee: Opening statement 3
Juster, F. Thomas, research scientist, Institute for Social Research, and professor of economics, University of Michigan 6
Kubarych, Roger M., senior vice president and chief economist, New York Stock Exchange, Inc 25
Wyss, David A., senior vice president and chief financial economist, Data Resources, Inc 37
Havrilesky, Thomas, professor of economics, Duke University 54
Hadjimichalakis, Michael G., associate professor of economics, University of Washington, Seattle 126

FRIDAY, JANUARY 22, 1988

Sarbanes, Hon. Paul S., chairman of the Joint Economic Committee: Opening statement 163
Proxmire, Hon. William, member of the Joint Economic Committee: Opening statement 164
Scheuer, Hon. James H., member of the Joint Economic Committee: Opening statement 165
Eisner, Robert, professor of economics, Northwestern University 165
Kellner, Irwin L., chief economist, Manufacturers Hanover 182
Blinder, Alan S., professor of economics, Princeton University 205
Sinai, Allen, chief economist, The Boston Co. and Economic Advisors, Inc 215
Behravesh, Nariman, senior vice president, WEFA Group 249

FRIDAY, FEBRUARY 19, 1988

Sarbanes, Hon. Paul S., chairman of the Joint Economic Committee: Opening statement 285
Sprinkel, Hon. Beryl W., Chairman, Council of Economic Advisers, accompanied by Thomas G. Moore, member; and Michael L. Mussa, member 296

WEDNESDAY, MARCH 9, 1988

Sarbanes, Hon. Paul S., chairman of the Joint Economic Committee: Opening statement 333
Wylie, Hon. Chalmers P., member of the Joint Economic Committee: Opening statement 334
Proxmire, Hon. William, member of the Joint Economic Committee: Opening statement 338
Baker, Hon. James A., III, Secretary of the Treasury 338

TUESDAY, MARCH 15, 1988

Sarbanes, Hon. Paul S., chairman of the Joint Economic Committee: Opening statement 389

Page
Scheuer, Hon. James H., member of the Joint Economic Committee: Opening statement ... 393
Greenspan, Hon. Alan, Chairman, Board of Governors, Federal Reserve System ... 393

SUBMISSIONS FOR THE RECORD

Thursday, January 21, 1988

D'Amato, Hon. Alfonse M., member of the Joint Economic Committee: Written opening statement ... 4
Hadjimichalakis, Michael G.: Prepared statement ... 129
Havrilesky, Thomas: Prepared statement, together with attachments ... 58
Juster, F. Thomas: Prepared statement ... 11
Kubarych, Roger M.: Prepared statement ... 28
Wyss, David A.: Prepared statement ... 40

Friday, January 22, 1988

Behravesh, Nariman: Executive summaries ... 252
Blinder, Alan S.: Prepared statement ... 209
Eisner, Robert: Prepared statement ... 169
Kellner, Irwin L.: Prepared statement ... 185
Sinai, Allen: Prepared statement ... 219

Friday, February 19, 1988

Bingaman, Hon. Jeff, member of the Joint Economic Committee: Written opening statement ... 287
D'Amato, Hon. Alfonse M., member of the Joint Economic Committee: Written opening statement ... 294
Sprinkel, Hon. Beryl W., et al.: Prepared statement ... 301

Wednesday, March 9, 1988

Baker, Hon. James A., III:
    Prepared statement, together with attached charts ... 343
    Response to Senator Proxmire's question concerning the basis for the administration's forecast of business fixed investment for 1988 ... 387
D'Amato, Hon. Alfonse M., member of the Joint Economic Committee: Written opening statement ... 336

Tuesday, March 15, 1988

D'Amato, Hon. Alfonse M., member of the Joint Economic Committee: Written opening statement ... 391
Greenspan, Hon. Alan: Prepared statement ... 397
Symms, Hon. Steve, member of the Joint Economic Committee: Written opening statement, together with actuarial charts ... 429

THE 1988 ECONOMIC REPORT OF THE PRESIDENT

THURSDAY, JANUARY 21, 1988

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 10:05 a.m., in room SD-628, Dirksen Senate Office Building, Hon. Paul S. Sarbanes (chairman of the committee) presiding.

Present: Senators Sarbanes and Proxmire; and Representatives Hawkins and Wylie.

Also present: Judith Davison, executive director; and William R. Buechner, Dale Jahr, and Christopher J. Frenze, professional staff members.

OPENING STATEMENT OF SENATOR SARBANES, CHAIRMAN

Senator **SARBANES**. The committee will come to order. If the witnesses could take their place at the witness table, we would appreciate that very much.

This morning the Joint Economic Committee begins a series of hearings which is held every year in conjunction with the committee's review and evaluation of the annual Economic Report of the President. We are not yet certain when the Council of Economic Advisers will be submitting the annual report. It traditionally comes on the heels of the submission of the budget, and apparently the date for that submission is not yet certain.

Today and tomorrow the committee will hear from economists in the private sector whose testimony will focus on the economic outlook and appropriate economic policies for 1988.

The hearings will continue in the weeks ahead when the committee will receive the President's Economic Report, with testimony from Beryl Sprinkel, the Chairman of the Council of Economic Advisers, and his colleagues, and from Treasury Secretary James Baker. We also expect to hear from the new Chairman of the Federal Reserve, Alan Greenspan.

We are entering a year of unusual uncertainty with respect to the economic outlook. In the period since the stock market dropped on October 19, differences among forecasters have been sharper than is usually the case, with individual GNP growth rate predictions ranging from minus 2 percent to plus 3.7 percent.

Even before October 19, however, the high consumer debt burden and low personal savings rate raised serious questions about how much longer consumer demand could continue as the main engine of growth in the American economy.

During the first three quarters of 1987, consumer spending accounted for less than 40 percent of real GNP growth, compared to 120 percent of total GNP growth in 1986. The latest retail trade figures show there was virtually no growth in retail sales between February and December of last year.

The question is not so much whether consumer spending will continue to drive the economy, but whether consumers will reduce spending in 1988 either to replenish the wealth wiped out in October, or in anticipation of turbulence in the economy.

The uncertain prospects for consumer spending are compounded by other factors. Among them are the prospects for continued slow growth in the rest of the world and a number of considerations here at home, including the volatility in the capital markets, uncertainty over the course of interest rates, spending and revenue packages pursuant to Gramm-Rudman-Hollings, and the downward trend in new housing permits over the past year. Most economists expect these factors to mean slower economic growth in 1988 than in 1987.

Prior to October, the consensus among economists surveyed each month by the Blue Chip Economic Indicators was a growth rate of 2.8 percent, fourth quarter to fourth quarter 1987–88. In early November, this forecast fell to 1.9 percent. Since that time it has been revised slightly upward, and currently stands at 2.2 percent. The administration's forecast for 1988, on a fourth-quarter-to-fourth quarter basis, was revised slightly from 3.7 to 3.5 percent in mid-1987 and then, following October 19, was lowered to 2.4 percent.

The preponderance of forecasts for economic growth in the current year thus fall in the 2–2.5 range. Monetary policy may play a pivotal role in determining whether even such modest growth can be achieved. In the months ahead, the Federal Reserve may be called upon to address economic goals difficult if not impossible to reconcile.

Finally, I want to turn just for a moment to the trade deficit where, notwithstanding the improvement in the figures in November, it is clear that the 1987 trade deficit will show no improvement over 1986. In the absence of clear signs that the trade deficit is at last on a steady and sustainable downward path, serious questions will occur about the exchange value of the dollar; and in that event it will be difficult indeed for monetary policy to be focused solely on assuring domestic economic growth.

This potential dilemma was summed up recently in the comments of the Chairman of the Policymaking Committee of the International Monetary Fund, Onno Ruding. According to an article in the Wall Street Journal, Mr. Ruding said the United States will have to "tailor monetary and interest rate policy more to external conditions." Indeed, he is reported to have said bluntly—and I am quoting him: "My American friends are not accustomed to the fact that the U.S. is a highly indebted country."

We are fortunate to have a distinguished panel today to discuss these and other related questions as we look forward to the course of the economy in the months ahead. But before I turn to the panel, I would defer to Senator Proxmire for any statement he might have.

OPENING STATEMENT OF SENATOR PROXMIRE

Senator **Proxmire**. Thank you, Mr. Chairman.

These hearings I think are particularly important because we have such a puzzling, perplexing economic outlook and it is so difficult for us to decide on policies which to follow.

I am very concerned about the colossal increase we have had in debt, not just the Federal Government debt, but household debt, business debt. Overall debt in this country is far higher than it has been before. It is about 30 percent higher than it was on average, than it was at any time between 1966 and 1980. Every sector, it seems to me, is very heavily in debt and we have to address ourselves to that.

These hearings are directly focused on the economic outlook for 1988, this year. That is very constructive and causative, but I think there is a tendency on the part of all of us in the Congress to look to the next election. I don't have to do that now because I am not going to run again, but that tendency means that we tend to follow shortrun economic policies instead of long-range economic policies, long-range economic policies that will maximize the real growth of our economy in the long pull.

I think there is an illusion somehow—everybody denies it—but there is an illusion that somehow we can follow economic policies that will forever eliminate a recession. I feel that a recession is something that is going to recur fairly regularly. We haven't had one in a long time and we are overdue. I think even if we could eliminate recessions, I am not sure it would be a good idea.

Finally, it would be very interesting to me if any of you gentlemen want to comment at any time during the hearing on the new Palgrave. I was fascinated to read that article in the New York Times on Sunday which disclosed that there was this remarkable compilation, a million words, 2,000 pages, to which 100 or more economists contributed, including an eminent Nobel Prize winning economist, tried to focus on what economic thought, best economic thought can tell us about the policies we follow.

This is the first time this has been done, I guess, since the old Palgrave, which was almost 100 years ago. So that if you gentlemen would like to comment on that, I think it would also be very helpful.

Thank you, Mr. Chairman.

Senator **Sarbanes**. Senator D'Amato has an opening statement which will be included in the record at this point.

[The written opening statement of Senator D'Amato follows:]

WRITTEN OPENING STATEMENT OF SENATOR D'AMATO

MR. CHAIRMAN, I WOULD LIKE TO WELCOME TO THE JOINT ECONOMIC COMMITTEE THIS MORNING OUR DISTINGUISHED PANEL OF WITNESSES WHO WILL PROVIDE THIS COMMITTEE WITH AN ECONOMIC OUTLOOK FOR 1988.

SOME OF THE BEST NEWS OF THE NEW YEAR CAME FROM THE LATEST TRADE FIGURES RELEASED BY THE DEPARTMENT OF COMMERCE LAST FRIDAY. NOVEMBER'S TRADE DEFICIT PLUMMETED $13.2 BILLION.....DOWN A WHOPPING $4.4 BILLION FROM THE $17.6 BILLION IN OCTOBER. THE DOLLAR'S FREE FALL OF RECENT MONTHS UNDOUBTEDLY PLAYED A SIGNIFICANT ROLE IN THIS DEVELOPMENT. THE DROP IN THE TRADE DEFICIT WAS DESPERATELY NEEDED IN ORDER TO STAVE OFF A MORE THAN LIKELY RISE IN INTEREST RATES.

THE ECONOMY HAS REMAINED FAIRLY STABLE IN SPITE OF THE EVENTS OF BLACK MONDAY. BUT THAT DOES NOT PRECLUDE US FROM TAKING A SECOND LOOK AT THE DIRECTION IN WHICH THE ECONOMY MAY BE HEADED. THE MASSIVE FEDERAL BUDGET DEFICIT CONTINUES TO LOOM ABOVE OUR HEADS. IN THESE TIMES OF A HEIGHTENED BUDGETARY CONSCIOUSNESS, IT IS ESSENTIAL TO SEND A CLEAR

SIGNAL OF OUR SERIOUSNESS ABOUT FISCAL RESTRAINT TO THE FINANCIAL MARKETS.

I WOULD LIKE TO POINT OUT THAT OUR ECONOMIC OUTLOOK IS NOT TOTAL DOOM AND GLOOM. THE UNEMPLOYMENT RATE IN 1987 DROPPED FROM 6.6% TO 5.9% IN 1987; THREE MILLION NEW JOBS WERE CREATED; AND REAL GNP GROWTH FOR 1987 IS EXPECTED TO BE ABOUT 3.7%.

THESE FIGURES ARE QUITE ENCOURAGING AS ARE THE TRADE STATISTICS FOR NOVEMBER. THE NEXT FEW MONTHS WILL BE CRUCIAL IN DETERMINING THE PATH THAT THE ECONOMY WILL FOLLOW. IT IS TIME TO ASSESS CAREFULLY OUR ECONOMIC POLICIES AND TO MAKE A DELIBERATE EFFORT TO GRASP THE REIGNS OF FISCAL RESPONSIBILITY.

I LOOK FORWARD TO THE TESTIMONY OF OUR WITNESSES THIS MORNING AND TO THE INSIGHT THEY ARE SURE TO PROVIDE THIS COMMITTEE AS TO THE ECONOMIC OUTLOOK FOR THE NEW YEAR.

THANK YOU, MR. CHAIRMAN.

Senator **Sarbanes**. We will now turn to our panel, which we are very pleased to have.

We have Thomas Juster, research scientist of the Institute for Social Research at the University of Michigan; Roger Kubarych, chief economist of the New York Stock Exchange; David Wyss, chief financial economist for Data Resources, Inc.; Thomas Havrilesky, professor of economics at Duke University; and Michael Hadjimichalakis, professor of economics at the University of Washington.

Mr. Juster, I think we will start with you. You are in the center there, in any event. And then we will move to your left, my right, and take Mr. Kubarych and Mr. Wyss, and then we will come back and move this way and take Mr. Havrilesky and Mr. Hadjimichalakis.

Gentlemen, we have your prepared statements and they will be included in full in the record. If you could summarize them, presenting the salient points in something under 10 minutes each, we would appreciate that very much. We will hear from all of you and then have a general question and discussion session. I am going to ask a staff person to slip you a little piece of paper when you hit about 8 or 9 minutes so that we can try to stay with this 10 minutes. Obviously, the more you can compress your remarks, the more time will be left for the question and discussion period.

Mr. Juster, why don't you lead off?

STATEMENT OF F. THOMAS JUSTER, RESEARCH SCIENTIST, INSTITUTE FOR SOCIAL RESEARCH, AND PROFESSOR OF ECONOMICS, UNIVERSITY OF MICHIGAN

Mr. **Juster**. Thank you, Mr. Chairman.

My testimony is concerned entirely with the probable impact of the stock price decline and subsequent developments in those areas on consumer expenditures. I do not pay attention to other areas of the economy, although I would be willing to comment on those at some later point if questions arise.

The way most economists think about the relation between stock prices and consumer spending is in terms of the standard model of consumer saving behavior, which essentially is a life cycle model. The argument is that consumers adjust their spending and savings so that they accumulate assets when they work and use them when they retire. Whether they leave assets at the end is partly a matter of whether or not they plan to leave a bequest.

In that model there is a direct impact of wealth on consumer spending. An important piece of wealth is wealth held in the form of common stock. So if you have a decline of the sort that we had in the late summer and fall of last year, with about a trillion dollars' worth of wealth wiped out in the course of a couple of months, models of that sort would essentially say that you can expect to find between a 3-cent and 6-cent impact on spending per dollar change in wealth.

Given a trillion dollar decline, 3 cents on the dollar is $30 billion; 6 cents is $60 billion. That is a very large effect, and it is presumed to run directly through the impact of wealth declines on consumer spending.

My perspective on that problem is a little different. I see two possible channels of influence that could exist between changes in stock prices and consumer spending. One is the one I just mentioned, the direct wealth effect. If stock prices go down, consumers are poorer, they will therefore spend less to some degree.

Second, there is what I would call an expectational effect. Sharp declines in stock prices may or may not have significant impacts upon consumer optimism and, for that matter, on business optimism. Those are different in terms of the causation channel, although they may be very hard to disentangle empirically since they both may occur at the same time. But technically and analytically, I think it is very useful to distinguish what I would call the direct effects and the indirect effects, the direct ones being what happens to consumer spending because some consumers are poorer when stock prices decline, and the indirect effect: what happens to consumer optimism and subsequently spending because a stock price decline may weaken optimism.

On the direct effects, the bottom line of my testimony, to foreshadow the results, is that the direct effects are probably not very large. The basic argument is twofold. First, we need to look at the data on who owns common stock and how much they own—how heavily concentrated is common stock ownership in the economy. What that table shows is the proportions of households that own various amounts of common stock, and the average amounts held by households in different wealth and income categories. These data are somewhat dated, but the numbers would not be that different and the patterns would hardly be different at all.

For common stock, 80 percent of households own none. Most of the rest own very small amounts, with only about 1.7 percent owning more than $100,000 worth. That figure would be larger if current data were used, since there have been substantial increases in security prices since 1983 when the data were collected.

The basic point is that the number of households with large holdings of common stock is really quite small, and that would be just as true of 1988 as it was in 1983.

The second panel of that table shows the average amounts of common stock held by households in various net worth categories. The bottom line from that panel is that the great bulk of common stock is owned by households with net worth of more than half a million dollars. By "great bulk," I mean 80 percent. Households with that much net worth comprise a little less than 4 percent of households.

So looked at either in terms of households owning common stock or not owning it, or concentration as reflected by average amounts of stock held by people with varying levels of wealth, you get the same answer—a great deal of concentration; and the same answer emerges if you look at common stock holdings by income.

For example, the third table of that panel says that something like two-thirds of all common stocks are held by households with more than $96,000 of annual income in 1983. That is a very heavy concentration.

The bottom line from the analysis of direct effects is that you can only expect to find significant consumption effects in a relatively small number of quite wealthy or high-income households who own most of the common stock. Even there, I am not sure I would expect much influence, because for very many wealthy households, their consumption is not very closely tied to either their current income or to their wealth. They have stable consumption patterns which reflect the fact that they are well off, have been well off, and will continue to be well off; even large variations of the sort we saw in the fall and late summer might not have much influence on the spending of these households.

Finally, in the great bulk of households, there is no direct wealth effect because households don't have any common stock to be affected.

You might say that is all well and good if we are talking about direct ownership, but what about pension funds? After all, many more people have an equity in a pension fund, and pension fund assets are very important in terms of consumers wealth portfolio. Would you not expect large effects that way?

The answer is, in principle yes, under certain kinds of pension arrangements, but in fact no. The reason the answer is no generally is that roughly 85 percent of pension fund assets are in what are called defined benefit plan. In a defined benefit plan, the employee has the right to an income on retirement. The amount of pension income will be a function of how long you have worked and of what the final salary was, or some formula which is much like that.

In a defined plan, the company that sets the plan up owns the assets. They have an obligation to pay income when eligible employees retire. If stock prices go up, the company pension plan gets the benefits. If stock prices go down, the company pension plan has to absorb the cost. The only way that the employee's rights to income would be affected by a decline in stock prices is if the decline were so sharp that it made the fund insolvent.

But that generally was not the effect on pension funds of the stock price decline. Many pension funds are currently or were overfunded. Now they are less overfunded because their asset values are down, but the point is that pension fund asset changes mainly influence the business sector, not the consumer sector. Changes in asset values will either make it incumbent on firms to put more money in to make the fund financially viable or they give the firm an opportunity to take some profits out because the fund has more money than it needs.

It is only the 15 percent of pension funds which are defined contribution plans where you might have a direct effect. I happen to have one of those, as do indeed almost everyone who works for a college or university. We have a defined contribution plan, so my assets went down very substantially during the stock price decline. Even for people like me with retirement assets that we own, the effect on consumption depends on how far away you are from retirement. If you are 2 days away, then I think it makes a difference. If you are 10 years away, I am not sure. It doesn't make a lot of difference to me. If you are 30 or 40 years away from retirement, I doubt it matters at all.

So I just don't expect very large direct effects, either because most people don't own stock directly, or because most people are not affected by changes in pension fund holdings, for the ones that are, it is largely a matter of how close you are to retirement. So my assessment on direct effects is that I would not expect much, and if there are effects, you have to look for them among very wealthy households.

Does that mean there was or will be no effect on consumption? The answer is no, because there are indirect effects that may be quite important. The argument would be that when stock prices decline sharply, consumers have to assess what that means for the kind of mental models they have of the economy, and it may well induce uncertainty and caution.

A decline like we had on October 19 has never occurred before in financial history. People had a lot of trouble fitting that into their mental models, and we have some measures of the effect on consumer optimism and pessimism.

Tables 2, 3, and 4 in my prepared statement have some data on the impact on consumer optimism and pessimism of the change in stock prices on October 19. Table 2 contains October data before the crash, and after the crash. Table 3 has data on what happened in November, and table 4 has some data on people's judgments about the likelihood that the crash would bring on a recession.

To summarize those data briefly, there was a sharp impact on consumer confidence of the stock price decline. In general terms, it caused consumer optimism to drop by about 10 points, from the low 90's to the low 80's. That occurred in the middle of October. You can see it in the early October/late October data. November shows about the same level as late October, about a 10-point decline. December, which you don't have there, shows a bit of a bounce back. The optimism index didn't stay down at the low 80's; it moved toward the middle 80's.

So on indirect effects, there was an impact on consumer optimism. Consumers clearly saw the stock price decline as making the future of the economy much less certain than before. It wasn't so much that they saw their own financial future as being highly uncertain, but they saw the economy's behavior as being much harder to predict, much more uncertain, much more likely to tilt toward recession.

That is usually the strongest kind of influence that consumer optimism has on the economy. It isn't that consumers look at things and see themselves as getting in trouble. They look at events and see the economy as getting softer. That is clearly what happened in late October and November, to some extent in December. How big the effect is, I think is still very hard to tell. My judgment would be that it is not strong enough to push the economy into recession. It is clearly strong enough to push the growth rate down from 2½ to 1½, or something of that sort. If you guessed 2½ before, you wouldn't guess much more than 1½ afterwards.

But I should caution you that any judgment that I or anybody else makes on that kind of impact, that kind of quantitative statement, is a very chancey statement because we are looking at a unique historical event and trying to make a guess about the consequences. We don't have any data that go back in history that relate events like this to subsequent changes in consumer spending. So we really don't know what the effect will be. It clearly is not going to be good, but it could range all the way from so small as to be almost nothing, to so large as to produce a recession. The evidence looks to me now like the effect will be in the middle. It will be large enough to be noticeable, not large enough to produce a recession.

That is the basic thrust of what I have to say. I do have one or two brief comments about policy but I think I will hold those until we have general discussion.

Let me just finally make one brief comment about Senator Proxmire's question about debt. It is true that by most measures, debt levels in the household sector are higher than they have been historically. The number which is highest and most often cited as a concern is the ratio of consumer debt outstanding to consumer income. That is up at historic levels, or at least was until about a month or two ago.

That is probably not the best measure to use because income is a flow and debt is stock, so you really want to compare flows to flows and stocks to stocks. You might compare debt to assets. If you look at that, debt is higher than it used to be, but not much.

If you look at debt service compared to income, perhaps the most meaningful measure of debt, that doesn't look very different than it did 10 years ago; that is, people are not committed to repay more debt now relative to their income than they were 10 years ago. There is a little evidence that if you ask people: are you worried about how much debt you have, people are more likely to say, "Yes, I am a little concerned about that; I think I am a little overburdened."

So there is something in the debt issue, although probably not as much as most analysts would gauge.

Thank you.

Senator **Sarbanes**. Thank you very much, sir.

[The prepared statement of Mr. Juster follows:]

PREPARED STATEMENT OF F. THOMAS JUSTER

Stock Prices and Consumer Spending:
an Appraisal of the Great Crash

Introduction

Ever since the unprecedented drop of 500+ points in the Dow Jones averages on October 19, the public has been deluged with analyses of the causes and consequences of that unique historical event. We may never discover exactly what caused so sharp a decline, since that would require being able to untangle the role of program trading, herd instinct in the market, speculation in equities during the months prior to the crash, and the inexperience of many Wall Street money managers who had never seen a sharp decline in stock prices; to say nothing of more fundamental factors--the twin deficits relating to the federal budget and international trade, the concerns of foreign investors about the value of the dollar and the risk of owning U.S. assets, the rise in interest rates during the preceding months, and the uncertainties about the policies to be followed by a new chairman of the Federal Reserve Board, to cite just the leading candidates. From the point of view of economic forecasting, it may not be so important to be able to settle the question of why stock prices declined so sharply. But it is clearly crucial to be able to say what the consequences of that decline are likely to be, and when they will be felt in the economy.

Wealth Effects

By far the most widely used model for interpreting the consequences of the stock price decline on the demand for goods and services in the economy relies on the notion that consumer wealth is an important determinant of consumer spending. The most popular such model is the "life-cycle" model, which specifies that consumers plan their spending with an eye to the lifetime constraints of earnings during their working lifetimes. During active working years, consumers accumulate assets by saving part of their income, and these accumulated assets then finance consumption during old age, when earnings first decline and then reach zero on complete retirement. Whether all assets are used up in this way depends on whether consumers plan to make bequests and/or on whether they maintain assets as a hedge against unpredictable events--e.g., living longer than one might normally expect, having to pay heavy medical bills for oneself or one's family, etc.

In any event, such models predict significant consequences for consumer spending if consumer assets take a sharp and unexpected decline, as clearly must have happened when stock prices declined over 500 points in one day and roughly 1000 points over a period of several months. One well-known such model predicts somewhere between a 3 and 6 cent decline in consumer spending for every dollar decline in consumer assets. Since the decline in stock prices over the period of several months wiped out about a trillion dollars of wealth owned either directly (by way of direct holdings of common stock) or indirectly (by way of pension funds or similar institutional interests), the implication is a decline in consumer spending of the order of 30 to 60 billion dollars--a relatively large bite in the market for consumer goods and services.

Whether highly aggregated models of this sort capture the essential features of consumer response to sharp declines in stock prices is hard to tell from the available data, although there is certainly considerable support for that view. Without prejudging that issue, it is nonetheless useful to take a more micro-oriented look at the likely channels of influence, paying particular attention to the distribution of stock ownership among the population, the different forms of ownership rights that consumers have, and the likely consequences for spending behavior among consumers.

Direct Ownership

The best data we have on the distribution of direct ownership of common stock among consumers is the 1983 Survey of Consumer Finances, sponsored by the Federal Reserve Board and other public agencies and conducted by the Survey Research Center at The University of Michigan. Although 1983 is not 1987, the broad patterns of ownership do not change that much, and a good deal can be learned by examining some of these data.

Table 1 below shows the fraction of households that own common stock in various size categories (Panel A), the average amount of common stock owned by consumers in various net worth size categories (Panel B), and the average amount of common stock holdings for consumers in various income categories (Panel C). These are the basic data outlining the distribution of direct holdings of common stock among American households. The item at the bottom of the panels indicates the degree of concentration, measured by the proportion of total common stock owned by households in the various open-end categories, i.e., over half a million dollars of common stock holdings, over half a million of total net worth, and over $192,000 of annual income.

These data are illuminating. First, about 80 percent of American households have no direct holdings of common stock at all, thus could

TABLE 1. Distribution of Direct Holdings of Common Stock and Mutual Fund Shares among U.S. Households, 1983

A. Proportion of Households Owning Indicated Amounts of Stock		B. Average Value of Stock Held by Households in Net Worth Categories		C. Average Value of Stock Held by Households in Income Categories	
Size Category	Percent of Households	Net Worth Category	Average Stock Amount (Dollars)	Income Category	Average Stock Amount* (Dollars)
Zero	79.7	Zero or less	26	Less than $10,800	400
$1–4,999	10.1	$1–4,999	177	$10,800–23,999	2,300
$5,000–9,999	3.0	$5,000–9,999	123	$24,000–47,999	5,700
$10,000–24,999	2.7	$10,000–24,999	364	$48,000–95,999	26,800
$25,000–49,999	1.6	$25,000–49,999	737	$96,000–191,999	171,400
$50,000–99,999	1.3	$50,000–99,999	1,505	$192,000 or more	816,800
$100,000–249,999	0.8	$100,000–249,999	6,596		
$250,000–499,999	0.5	$250,000–499,999	20,972		
$500,000 or more	0.4	$500,000 or more	267,365		
ALL	100.0	ALL	12,587	ALL	14,400
Percent of Total in Open-end Class	54		80		48

*Includes IRAs and Keogh accounts.

not be affected directly by a decline in holdings of common stock; second, only about 1.7 percent of U.S. households have more than $100,000 worth of direct common stock holdings, and thus might have had very large absolute declines in the dollar value of their wealth; third, about 80 percent of all direct holdings of common stock are owned by households with more than half a million dollars of net worth (a group comprising less than 4 percent of U.S. households); and fourth, almost half of the common stock owned directly by U.S. households is held by those with 1983 incomes of more than $192,000 annually, and almost two-thirds is owned by households with more than $96,000 of annual income in 1983--income groups which together comprise about 2.4 percent of total households in the U.S.

The bottom line from this brief description of the distribution of direct common stock holdings among the U.S. population is that the great bulk of common stock is owned by households with either or both very large amounts of net worth and very large amounts of income, and for the most part, U.S. households have either no direct common stock holdings or amounts which are small relative to either their income or their net worth. If one is going to find important direct effect of wealth declines on spending, it will have to be in the spending of a small number of relatively wealthy households. A quantitatively large effect coming from this source seems implausible to this writer, although some effect is certainly possible.

Indirect Ownership

A substantial amount of common stock is held by pension funds, and the distribution of rights to those pension funds is much more broadly spread than the distribution of direct common stock ownership just described. Hence, one might well expect to find larger impacts of wealth declines on spending that work through the influence of wealth declines on pension rights. In 1983, for example, the combination of pension fund reserves and life insurance reserves contained about as many assets as the total direct ownership of corporate equities among households--both being about $1.5 trillion. In 1987, roughly the same ratio presumably pertained. Thus there is a large potential channel of influence working through consumer ownership of equity in pension funds and life insurance reserves, which could be affected by sharp declines in equity values.

However, the institutional arrangements that are common for most pension funds are not consistent with any large direct influence operating through consumer wealth. About 85 percent of the total pension fund assets in the U.S. are owned by "defined benefit" pension funds or the equivalent. In the typical defined benefit pension fund, the employee has the right to a future income, usually based on years of experience with the firm and average salary over the last few years of service. The firm that sets up the pension fund has the obligation to make sure that the fund has enough assets to meet those claims. But if the pension fund is invested in common stock and if common stock prices decline sharply, those movements have no effect at all on the future rights of employees to retirement income unless the stock price decline is sharp enough to cause the fund to become insolvent.

Thus it is the firm that garners the benefits of rising equity prices in such a pension plan, and the firm that has to pay the cost of declining equity prices: The employee's rights, except for insolvency or bankruptcy, are largely unaffected. (I say largely, rather than totally, simply because a pension fund that has benefited from sharp increases in stock prices may well be more generous with retroactive increases in the actual pensions paid to employees, even though there is no legal requirement to do so. For example, a firm with a lush pension fund may provide cost-of-living adjustments to its employees currently drawing pensions, while one with a less prosperous fund might not do so.)

The upshot is that a wealth effect operating through pension funds is largely absent for households, and applies at most to those households who have "defined contribution" pension funds where they own a pool of assets that are typically portable. Even there, since those assets are sequestered for use until after retirement, households where a good deal of time must pass between now and retirement might not give much weight to swings in equity values, in terms of their perceived needs to save for retirement. All in all, my assessment is that the direct wealth effect of even a very large decline in stock prices is not likely to be a source of major influence on consumption spending.

Indirect Effects

While the direct effects might be small, there is reason to suppose that there may be significant indirect effects. The way that could happen is if consumers perceived that a decline in stock prices such as occurred in October of last year signaled that there was major trouble with the economy and constituted good reason to rethink the likely short- and long-term vigor of the economy, with its implications for job security, overtime hours, and pay increments. Why should that be so?

One way to frame the argument is to suppose that consumers have a mental model about how the economy operates, into which they fit various pieces of information as they become available. Thus consumers know that price inflation is bad for the economy, since they have so much past experience suggesting that the economy weakens whenever there is substantial price inflation. Thus they will observe a jump in price inflation, feed that into their information processing mechanism, and emerge with the conclusion that the economy is likely to be weaker, and their economic future therefore less secure; hence there is some reason to become cautious in spending decisions. The sharp increase in oil prices in 1973 caused by the OPEC cartel caused a substantial reaction among consumers, but it fitted into the pattern of recognizing the links between price inflation and the future vigor and strength of the economy.

What about events like the stock price decline of October 19? Such an event cannot be comfortably fitted into consumers' existing mental models of how the economy cperates. While there must be some reason why stock prices declined so sharply, one would not be very comforted by listening to the various explanations offered by the experts in the aftermath of the stock price decline. Consumers must have had a hard time trying to figure out how to interpret that signal, but many consumers must have come away with the notion that the economy was less well understood by the experts than they had previously thought, and that it would be very hard to tell just what the consequences would be in the future.

If an event is observed that cannot be fitted into existing models, it seems likely that caution will be induced. As a minimum, some consumers would probably "wait and see" if this unique event would be followed by other events that could be more easily fitted into mental models. But of course waiting and seeing is equivalent to a decline in the rate of spending on consumption, since all that is needed for consumption to decline is that consumers postpone spending decisions. In particular, one would expect consumers to postpone decisions about major expenditures that could be deferred for a few months or a few quarters until it became clear just what economic prospects looked like.

That appears to be approximately what happened in the household sector. The Index of Consumer Sentiment declined sharply in the aftermath of the stock price decline, with most of the decline centered in consumer expectations about future business conditions (Table 2). In November, the Index continued to be at the sharply lower post-crash level, although the impact across various components of optimism was somewhat more uniform--still a significant impact on expectations about the economy, but now some impact on personal financial expectations (Table 3). There was then some bounce-back in December, although not much, and what will happen in future months is yet to be seen. Finally, consumers judged that there was a strong possibility that a recession would result from the sharp stock price declines (Table 4).

Conclusions

What does all this add up to? First, it is hard to make anything positive out of the data relating to consumer responses to the stock price decline: It has to hurt consumption, and the only question is how much. Second, there does not at this writing appear to have been any cumulative consequences of the price break in equities on October 19--there have been no further breaks as yet, forward-looking series reflecting orders do not appear to have been substantially affected, and although a number of indexes of consumer spending have been weaker than

Table 2

INDEX OF CONSUMER SENTIMENT AND ITS COMPONENTS

Index Measures (Table Number)	Oct 1986	Sept 1987	Oct 1987		
			All	BC	AC
Index of Consumer Sentiment (1)	95.6	93.6	89.3	92.5	82.4
Current Index (3)	108.9	108.3	103.1	105.3	98.5
Expected Index (3)	87.1	84.2	80.4	84.3	72.0
Personal Finances					
Current (3)	120	119	118	117	121
Expected (3)	127	124	128	128	129
Business Conditions					
One year ahead (3)	124	122	105	113	87
Five years ahead (3)	99	92	90	98	72
Buying Conditions					
Household Durables (3)	162	162	149	156	134
Homes (23)	164	146	144	148	135
Vehicles (25)	151	141	127	133	115
Cases	651	650	500	347	153

Note: BC = Interview conducted before October 19th.
AC = Interview conducted from the 19th to the 28th of October.

Table 3

INDEX OF CONSUMER SENTIMENT AND ITS COMPONENTS

Index Measures (Table Number)	Nov 1986	Aug 1987	Sept 1987	Oct 1987	Nov 1987
Index of Consumer Sentiment(1)					
All Families(1)	91.4	94.4	93.6	89.3	83.1
Families with Incomes over $30,000(1)	97.5	104.4	100.6	99.9	87.7
Current Index(3)	106.7	107.8	108.3	103.1	99.3
Expected Index(3)	81.6	85.8	84.2	80.4	72.7
Personal Finances					
Current(3)	121	122	119	118	115
Expected(3)	121	127	124	128	116
Business Conditions					
One year ahead(3)	120	125	122	105	93
Five years ahead(3)	87	93	92	90	80
Buying Conditions					
Household Durables(3)	155	157	162	149	142
Homes(23)	168	149	146	144	120
Vehicles(25)	132	141	141	127	122
Use of Savings	74	65	na	72	50
Use of Credit	55	51	na	48	43
Cases	656	654	650	500	501

Table 4

LIKELIHOOD OF RECESSION AS A RESULT OF STOCK MARKET DEVELOPMENTS

	Nov. 1987	Dec. 1987
Do you think sharp declines in stock market prices are likely to lead to a recession?[a]		
Very likely	17%	16%
Somewhat likely	51	49
Not very likely	20	25
Not at all likely	8	7
Don't know, NA	4	3
Total	100%	100%
Cases	501	500

The question asked was:

[a] "Some people think that the sharp declines in stock market prices will lead to an economy-wide recession, while others do not. Do you think sharp declines in stock market prices are very likely to lead to a recession, somewhat likely, not very likely, or not at all likely to lead to a recession?"

before, they are not disastrously weaker--and some of the weakness might well have happened anyway, given developments elsewhere in the economy. Thus it looks as if the stock price decline may have a quite limited impact on the economy, working mainly through some sluggishness in consumer expenditures over the next couple of quarters via an expectational effect. It does not at this writing appear that the effect of the stock price decline on consumer spending will be strong enough to produce a recession.

It needs to be recognized that these judgments are tentative, since there is no way to predict the consequences of a unique event by looking at historical data. The best one can do is try to find close parallels and then do a little extrapolation. In this case, the closest parallels appear to be the sharp declines in stock prices during several periods of the 1960s, where the consequences appeared to have been some slowdown in consumer spending but not enough to produce a recession.

What is the probable timing of any effect of the stock price decline on consumer spending? That's very difficult to specify. Ordinarily, there are substantial lags between changes in consumer expectations and attitudes and changes in spending behavior--usually several quarters and often more than that. But that may not happen this time, and a reasonable speculation is that any effect will not have much of a lag. But that's just straight speculation.

Incidentally, nothing in the analysis about indirect effects is necessarily at variance with the finding noted at the beginning of this article about the link between changes in household wealth and changes in subsequent household spending. Wealth effects may easily have both direct and indirect consequences--sharp increases in common stock prices both make a small number of households a good deal richer and may also make a large number of households feel that the economy is doing pretty well; while the reverse happens with sharp declines in stock prices--a few people are a lot worse off, and a great many people begin to wonder how well the economy will be doing. Thus one would observe behavioral consequences on household spending even if almost the entire effect of wealth changes worked through expectational phenomena rather than through direct impacts on household net worth. The data simply cannot discriminate between these two interpretations, and since both occur simultaneously, there is not necessarily any need to be able to make that discrimination.

Senator SARBANES. Mr. Kubarych, please proceed.

STATEMENT OF ROGER M. KUBARYCH, SENIOR VICE PRESIDENT AND CHIEF ECONOMIST, NEW YORK STOCK EXCHANGE, INC.

Mr. Kubarych. Thank you.

I agree with Senator Sarbanes' observation that there is a very wide range of interpretations about what the stock market decline means to the economy. I think that Professor Juster's analysis is compelling. And I agree with him completely that one interpretation is too extreme: that the stock market had become too high, had to come down, the households never really had time to adjust to the rise so it wasn't built into their behavior and therefore they don't have to do anything about it—I think that view is too optimistic and basically too complacent.

On the other hand, I agree that there is not enough of a direct and indirect impact from this disturbance to create a recession. I don't think that it will. That doesn't mean I don't think there are other forces which, over time, could contribute to that kind of an outcome. But they wouldn't be the direct and indirect reactions to the stock market decline.

So therefore, I think that he is just about right about the total impacts, both on the consumer and on business. Specifically, some businesses had been benefiting from being able to sell assets from overfunded pension funds. It was a good injection of corporate cashflow that enabled them to replace other sources of financing, and that won't be there. And many of them will have to resume contributions to pension funds. So a combination of a consumption effect and a business effect would lead to about a 1 percentage point decline in growth expectations, and that would bring the economy more toward moderate growth rather than robust growth.

The point is that this stock market decline took place when most economists were surprised about how strong the economy was getting, how much momentum was being built up. So part of what the impact is going to be is to bring an accelerating, vibrant economy back toward something that is both more moderate in terms of expansion and maybe more sustainable.

Now, I want to call attention to two different points. One is a longer term point. I think it is indisputable that risks in the financial system have materially increased, not just because of the stock market decline, but because of the volatility that we have seen in virtually every financial market—I call it a "contagion of instability"—over the last year. It started in foreign exchange markets. It seeped over to infect the bond markets last spring. And maybe the only puzzle was why it took so long to affect equity markets, but it did, and it has left a legacy of greater risk and a greater appreciation of risk. Measured volatility is higher, and just by any textbook analysis the investors are going to demand a higher rate of return to compensate for that risk. That is going to increase the long-term cost of capital. And over a long period of time, that is adverse for investment and for long-term growth.

So from a long-term, not a business cycle, perspective that is a damaging consequence. It is what economists call an externality and we all pay for it.

The other point that I want to put on the table is the international dimension. This was a global stock market decline. Whatever factors explain why it happened have to be global in scope. My own hunch is that it has something to do with a universal dismay or uncertainty or uneasiness about the degree of policy harmony. The mix of policies among countries was leading to a situation that would not be sustainable and that wouldn't really address the major imbalances among countries.

So I think that there is an underlying global concern that manifested itself in stock price declines everywhere, and ours was by no means the worst. Some of the worst declines in stock markets were in countries like Germany, where their companies have the burden not only of adjusting to the stock market decline, but also to a much higher German mark.

Now, the implications for policy I think are very straightforward. There is a contractionary impulse. It is not vast; it won't cause a recession, but it is going to accentuate slowing down tendencies that you are going to find in places like Europe. As a result, there is much more of a case for European countries, in particular, to take account of that and to increase the degree of stimulus that they are providing in their policies. And they can do that with much lessened risk of having an inflationary fallout. So I think they have more room to maneuver.

Even though most high officials that you talk to from Europe really discount the impact of stock markets on their economies generally, they just don't believe that they have much of an impact, I think they are overlooking the psychological factor, the confidence factor that Professor Juster talked about, and they need to think harder about that.

So they have a clear motivation to be providing stimulus both to offset the contractionary impulse of the stock market decline and the contractionary impulse of their exchange rates going up.

By the same token, we have a responsibility in this country to think about what we can do to make all these financial markets less unstable, because otherwise we will suffer. However, I don't agree that it is right to think of the United States as a debtor country, because I think that conjures up images of the Latin American countries, and the facts of the matter are that it is a very wide range of U.S. assets that foreign investors are acquiring. They are buying our stocks, which is not in debt, and they bought, on balance, almost $35 billion at an annual rate last year. I don't know if you have seen the numbers, but foreigners were net buyers of U.S. stock in October. So that is an important source of financing that is not debt. Also, foreign investors are major purchasers of real estate and other assets, including companies, and they will continue to be that. They are intertwined in our economy. So the United States is not a debtor country in the old-fashioned Latin American sense. But it is a requirement for us to be concerned about foreign confidence in our financial markets, and I think that we have to think harder about producing better stability in financial markets.

From what I can see, the Federal Reserve is concerned and the kinds of policy choices that they have are likely to retain that thrust.

That is a summary of what I think are important themes to get on the table.

Senator **Sarbanes**. Thank you very much, sir. That was very helpful.

[The prepared statement of Mr. Kubarych follows:]

PREPARED STATEMENT OF ROGER M. KUBARYCH

My name is Roger Kubarych and I am senior vice-president and chief economist of the New York Stock Exchange, Inc. I am pleased to respond to your request for my analysis of the economic outlook, with special reference to the impact of the sharp decline in equity prices last October. As a preamble, I would emphasize that this statement presents my personal views and not an official position of the NYSE.

Last October's disturbance in the equities market has provoked a remarkably wide range of interpretations.

There are some observers who take the view that market valuations had gotten too high, so some correction in prices was inevitable; that individuals never had time to adjust to the higher stock prices which emerged during the 1987 rally, so their spending behavior won't have to respond to the price drop; and that the net change in equity prices for the year was still up, so upon reflection, the October episode will soon be regarded as a bad dream. Their conclusion is that the impact on those real economic variables we all care about -- jobs, investment, and earnings -- will be minor.

Other analysts have taken exactly the opposite tack. They believe the plunge in equity values, which after all was front page news virtually everywhere for weeks last fall, has profoundly shaken consumer confidence and will induce a severe cutback in household spending. They believe businesses are also fearful of a drop in domestic final demand and will scale back what they intend to produce. They feel that there is a significant danger of recession.

My own view falls just about midway between these two extremes. By itself, the fall in stock prices has to weaken aggregate demand, perhaps by as much as 1% over the next year. Part of that comes from what is known as the 'wealth effect'. Where household savings rates have been low and falling, they will shortly tend to rise. This effect is significant, but not mechanical, will take a relatively long time to materialize, and will mainly reinforce already existing weaknesses in the housing sector and in consumer durables. Businesses will also react in anticipation to somewhat weaker domestic final demand, and revise downward a little their production plans. And I would envisage additional caution by state and local governments as they go forward with their own programs.

But these contractionary elements are far too small, by themselves, to cause a recession. It is important to bear in mind the stock market decline occurred at a time when the U.S. economy was on the verge of a substantial acceleration in the pace of business activity. Some of that steam will be taken out of the system as a result of the impact of sharply lower equities prices. But the build up of momentum was considerable and will dominate the immediate outlook. Hence, my best guess is that the net result will be a period of moderate expansion, perhaps in the neighborhood of the 2% or so real growth estimate that emerges from the consensus of market economists.

However, while I think there is hardly any danger that the direct economic impact of the stock market decline will cause a near-term recession, I would not belittle the significance of the October episode for longer term performance of the economy. And I would not ignore the residual concerns of individual and professional investors alike that still lie just beneath the surface and would be quickly inflamed by another financial shock.

Even if we manage to avoid another severe market eruption, there is a longer-term legacy of October 1987 that has to be factored in. Risks in the financial system have materially increased, and that is universally understood. Measured volatility of equity prices has had to undergo substantial upward revision. As a result, investors will demand higher returns to compensate for the increase in risk. That will translate into a lasting increase in the cost of capital. And over time, a higher cost of capital will tend to retard business investment and to slow the rate of improvement in the economy's growth potential.

These are not insignificant consequences, and we will have to contend with them. But they are not themes that relate to the short-term course of the business cycle.

Where I do see a potentially negative factor in the period immediately ahead is from the international dimension of the October episode.

The drop in equities prices was global in scope. Without exception, investors throughout the world experienced a decline in wealth. Financial risks and price volatility went up everywhere. Consequently, consumers and businesses throughout the world will have to go through the same kind of reassessment of their spending plans as Americans. Similarly, investors will have to reconsider their ability and willingness to expose themselves to risk as they deploy their savings.

Naturally, people will respond differently in each country. As for the United States, what the response will be will heavily depend on the entire economic picture, not just what the decline in the stock market itself implies.

It probably should come as no surprise to learn that high government officials in a number of countries, especially in Europe, dismiss the notion that the fall in equity values will have any important impact on their economies. They traditionally have downplayed the connection, and they have not changed their view in the wake of the October price decline. They could be right. But I suspect that even where the distribution of stock ownership is the narrowest and where equity price movements do not get the kind of public attention as they typically do in this country, there will be some negative effects.

And for many of the major countries abroad, these effects, even if they are small, come at a time when a momentum toward faster economic growth was not developing. To the contrary, the tremendous rise of foreign currencies against the dollar that has taken place almost guarantees a significant slowing of growth in many countries. The fall in equity prices will aggravate that tendency toward relative stagnation, perhaps only to a small extent but even a small additional drag on economic growth will be discouraging, particularly in terms of business investment.

Consequently, while it is essentially alarmist to warn of economic collapse when the likely outcome is more in the nature of a diminution of positive growth, it is not an exaggeration to assert that the global stock market decline will make it more difficult to achieve a better-balanced pattern of economic activity worldwide. Growth abroad will almost certainly be unsatisfactory from the perspective of reducing some of the large imbalances in trade and in financing requirements that perpetuate a climate of uncertainty and even fragility in world financial markets.

Regrettably, this is an overall outlook that need not happen. The authorities abroad are capable of taking reasonable steps now to reinforce elements of stimulus in their economic policies and thereby offset the contractionary forces that could weigh on their economies.

To put it another way, the economic outlook in the major industrial countries abroad will depend more sensitively than before the October stock market disturbance happened on the policy actions of their governments and central banks. For them to sit back and hope for a spontaneous surge of demand from consumers and businesses would not be in their own interests and would not be constructive from the perspective of the world economy.

Instead, they could well give some serious thought to ways of bringing forward elements of public spending, accelerating planned tax cuts, and generally pursuing more accommodative monetary policies. The degree of additional stimulus need not be great. But such actions could produce a significant reduction in the risks, small but not negligible, of a pause in their economic expansions. And they could be done now, when global inflationary expectations have been tempered, with little danger of exciting price pressures in their countries.

But what about this country?

We have large deficits, both budgetary and current account, relative to the appropriate yardstick: net domestic private savings. We can, and should, act to lower those deficits in an orderly, responsible way. We also can think harder about how to encourage private savings in order to reduce the cost of capital to industry and thereby stimulate greater investment.

In the meantime, we have to sell securities and other assets to foreign investors, who save more abundantly than their own industries can find profitable ventures to invest in at home. Those excess savings don't come here automatically, however. At the margin, the level of interest rates, the value of the dollar, and the price of U.S. stocks are heavily influenced by (but certainly not determined by, not yet anyway) the willingness of those investors to acquire our securities and other U.S. assets. Retaining their confidence is essential. Thus, it's worthwhile to listen to what they have to say.

What the thoughtful ones are saying is not that their governments and monetary authorities are doing everything right and ours are getting it wrong. Rather what they are saying, both in the ordinary sense of that term and, by analogy, in their buying and selling decisions in financial markets, is that the outcome of today's mix of economic policies, theirs and ours, is leading to excessive instability in financial markets. That instability is profoundly costly. It cannot be prevented directly, but the root causes can be worked on.

Understandably, the European and Japanese investor and business leader is particularly dismayed by a strand of abstract economic reasoning that maintains that the United States should seek as sharp a further depreciation of the dollar as it takes to secure a rapid elimination of the U.S. trade deficit. They feel this prescription is narrowly nationalistic in thrust. Whether it is or not, I can't say; it may simply be a traditional textbook view of the world that has once again gotten a lot of attention.

But the argument disturbs these foreign investors and business leaders because it seems to them that this country is willing to tolerate -- or even to incite -- volatility in the foreign exchange markets, without regard to the impact on other countries. And they properly point out the fact that all of the financial markets these days are tightly interrelated; instability in any one market, say the foreign exchange market, is readily transmitted to the bond market or the stock market, and not just in one country, but globally.

There is much to think about in these criticisms, all the more so after the sequence of disturbances which have destabilized each of these financial markets over the last twelve months. The stock market plunge was not the beginning of anything, nor was it the end. It was part of a contagion of instability that, left unchecked, threatens to erode and eventually to undermine the confidence of investors abroad -- and in this country as well.

Thus, we should not take too much comfort from the prediction that the October disturbance is highly unlikely to provoke a recession until we have much greater assurance that the financial markets can be made less vulnerable to recurrent bouts of instability in the period ahead.

Senator **Sarbanes**. Mr. Wyss, please proceed.

STATEMENT OF DAVID A. WYSS, SENIOR VICE PRESIDENT AND CHIEF FINANCIAL ECONOMIST, DATA RESOURCES, INC.

Mr. **Wyss**. Thank you, Mr. Chairman.

Since everybody has been talking about the stock market and the consumer, I think it is probably incumbent on me to talk a little more about the general economy and why we do not expect a recession over the next year.

I think that is important because the financial markets are clearly indicating a recession. If you look at the financial marketplace and the financial data that are coming in, the money numbers, the stock market, are clearly saying there is a recession coming in the near future. We have never had a drop in the stock market of more than 30 percent without a recession. We have never had a decline in the real money supply without a recession. Both of those happened in 1987.

One of the main reasons why we don't think a recession is coming in 1988, however, is that we think that those financial variables—and particularly the money supply—are pointing at the domestic economy, not the total economy.

One of the big advantages that we have going into 1988 is the continued rapid turnaround in our trade account. That has been hidden by what has been happening to prices and to other things, but over the last year, from November to November, exports rose 29 percent while imports rose only 9 percent. In volume terms, the difference was even greater; imports were virtually flat over those 12 months.

That sharp swing in exports has been reflected in the health of the manufacturing sector in particular. That is why we got over half a million new jobs in manufacturing in the second half of 1987, and we think that swing is going to be continuing during 1988.

During 1987, the swing in the real trade balance contributed nearly 1 percent to the rise in GNP. During 1988, we expect it to contribute a full percentage point. Quite frankly, without that percentage point, I think the risk of a recession would be very real during this year.

The other point is that we have a healthy economy going into the recession. If you are going to get shot, it helps to be healthy; it gives the doctor a little better odds of getting the bullet out of you. I think that has been the case here, too. We have a very nervous market, a very nervous consumer, but they were looking pretty going into October 19, going into that record stock market drop.

I think if we can keep the financial markets calm over the first 6 months of the year, the American businessman and the American consumer is going to regain his confidence in the economy pretty quickly. It always helps to remember that the American consumer has a relatively short memory, and our indicators of consumer confidence have always indicated that it is only very short-term swings in the economy that affect consumer confidence.

The health of the economy also means that we should get a pretty good investment performance during 1988. We have several industries that are now approaching capacity: paper; chemicals; even steel, for the first time in 30 years, is beginning to be constrained by capacity limits. To an extent, a slowdown in early 1988 might even be a little helpful to these industries, because it will give them some time to get investment in place to expand capacity, to enable them to meet the orders that they are already getting in.

The backlog of orders on the books is also encouraging because it means that unless those orders get canceled—which I admit is always a possibility—they have enough orders to keep operating for several months without any immediate need for layoffs or anything else that might damage confidence or damage the economy.

We expect equipment investment, investment in producers equipment, to rise by about 6 percent during 1988. That is roughly in line with the surveys taken by both McGraw-Hill and by the Commerce Department. We think those surveys are basically accurate. People intend to invest; they have every reason to invest, even after the crash.

The major risks that have to be avoided, however, are anything that could damage business confidence or further damage consumer confidence. The domestic economy is going to be soft during 1988. Consumer spending—consumers have turned cautious; they are not panicking, but they have decided that there is a cloud on the horizon and maybe it is time to start saving for a rainy day. Well, the saving rate dropped to a record low of 3½ percent last year, so a little bit of increase is probably a good idea anyway. We expect it to go back to about 4½ percent during 1988, still low by historic standards. That does mean consumers have to slow down on their spending.

The construction environment remains relatively weak, in part because of tax reform, which made rental housing and office buildings less efficient tax shelters than they used to be—it is hard to argue we need more office buildings when we still have a 20 percent vacancy rate out there anyway.

All these things mean the domestic economy is going to be soft, but we have those two bright spots of the foreign sector and producers' investment that should keep the economy growing at a rate of about 2 percent during the course of 1988.

The other bright spot for the economy is that inflation remains very subdued. Consumer prices rose 4.4 percent during 1988. That is quite a bit more than they rose during 1986 when they were up only 1.3 percent, but that is a little misleading. That swing was entirely caused by oil prices. If you take out food and energy, inflation was lower in 1987 than it was in 1986, 3.5 percent versus 3.8 percent.

I don't think the Federal Reserve can do much about oil prices. I don't even think they can do much about agricultural prices on a year-to-year basis, not until we learn how to control the weather with monetary levers.

The subdued inflation, I think, gives us some room to fight against the possibility of recession during 1988. I think the Federal Reserve is going to have to bring interest rates down in early 1988, to bring real money supply growth back up into the positive range, with monetary aggregates back closer to their targets than they were during 1987.

But the Federal Reserve has two big constraints working against it. One is the dollar. The sharp drop that has already occurred in the dollar is making markets very nervous. We are still dependent on borrowing from foreigners to finance the large borrowing that we are doing—not just the Federal borrowing, but also the borrowing done by consumers and by businesses in this country. The need to attract that money from overseas has meant that we have to maintain a differential between U.S. interest rates and foreign interest rates.

U.S. bond yields have consistently run 4 percentage points above Japanese bond yields over the last several years. That means that even if the Federal Reserve loosens, there is a strong risk that the bond market won't follow short-term interest rates down. You can push on the money supply all you want, but if the bond market is dependent on foreign capital, bond yields may not move. That means that we could end up with only a steeper yield curve, the possibility of more inflation, and quite possibly a lower dollar that would further scare foreigners.

To eliminate that problem, we need to eliminate or reduce the borrowing that we are doing from overseas, and that means reducing the total borrowing that we are doing in the economy. For that reason, I think it is very important to the health of financial markets to continue to reduce the Federal deficit, to continue to reduce Federal borrowing, and to maintain as stable an environment as we can.

The odds are that we can get through 1988 without a recession. But there certainly exists the possibility of policy errors that could force the slow growth that we expect during 1988 into an outright downturn.

Thank you.

Senator **Sarbanes**. Thank you very much.

[The prepared statement of Mr. Wyss follows:]

PREPARED STATEMENT OF DAVID A. WYSS

THE ECONOMIC OUTLOOK

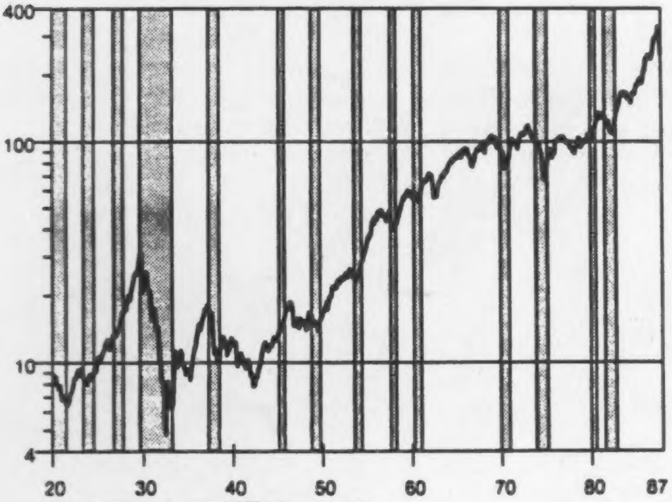
Chairman Sarbanes, Members of the Committee

I am very pleased to be here to discuss the outlook for the economy over the next two years. The gyrations of financial markets over the last few months have clouded our crystal ball considerably, but now that the data are coming in for the period after the crash, we are beginning to get a clearer picture of the 1988 outlook. DRI expects a slowdown early this year, but no recession.

The financial markets give us every reason to be concerned about the economy. The slow rate of growth of the money supply, the sharp drop in stock prices, and the continued slide of the U.S. dollar are all signs of trouble. The stock market crash was the most visible such signal. The record decline in share prices on October 19 was only part of a 33% plunge in stock prices from the August 22nd peak. Any time in the past that the stock market has declined by more than 30%, the economy has gone into recession.

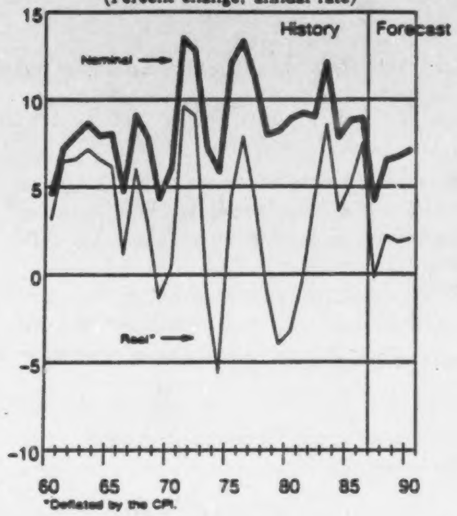
The slow growth of the money aggregates is another troubling indicator. From the fourth quarter of 1986 to the fourth quarter of 1987, the percentage rise in the monetary aggregates was the smallest in the history of the new series (which go back to 1959). The growth of M2 (4.1% from the fourth quarter to the fourth quarter) is expected to be below

The S&P Index of 500 Common Stocks
(1941–43=10, logarithm scale)



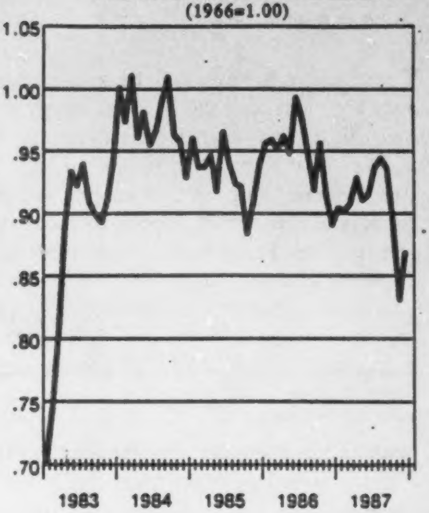
Note: Vertical lines denote NBER reference cycles.

Growth in the Money Supply (M2)
(Percent change, annual rate)



*Deflated by the CPI.

The Consumer Sentiment Index
(1966=1.00)



the rise in consumer prices over the same period. Only three previous drops in real M2 have occurred, all of which were accompanied by recessions.

We believe, however, that the money data have been distorted by the tax changes that occurred in early 1987. The money supply was bloated in late 1986 as investors sold assets to beat the January change in capital gains rules. The proceeds from these sales were parked temporarily in bank accounts, accounting for about 1% of the level of the money supply. If this bulge were taken out of the late 1986 figures, 1987 growth would be 5.1%, only moderately below the Fed's target range.

The financial data are primarily indicators of the domestic economy. The domestic economy next year does look soft, but the improvement in our trade account should avert a recession.

Consumers have become more cautious after the crash, as the retail sales statistics for November and December show. But although they are more cautious, consumers do not appear to be panicking. We expect the saving rate to move up, but consumer spending to increase somewhat in 1988.

Like consumers, businesses appear to be taking the financial crisis calmly. Investment plans remain firm for 1988. With U.S. production costs now competitive with the rest of the world and many U.S. industries now operating near capacity, investment is expected to be strong in 1988.

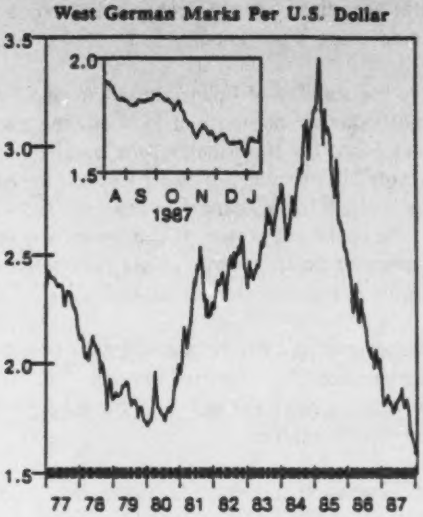
Construction, however, will be soft, in continued response to the tax reform act and to the very high vacancy rates in multi-family housing and office buildings. It will take several years to restore vacancy rates to normal levels.

The continued surge in U.S. exports will support the economy. Over the latest 12 months (ending in November), exports of goods rose 29%, while imports rose only 9%. A rise in import prices has balanced the increase in export volume, leaving the nominal trade deficit worse in 1988 than in 1987. Although the nominal trade deficit has not improved, the sharp rise in export volume has helped support the economy in general and manufacturing employment in particular. The narrowing of the real trade gap contributed nearly a percentage point to 1987 GNP growth, and is expected to contribute the same amount in 1988.

Without this continued improvement in exports, I would expect a recession in 1988. Even with the narrowing of the trade gap, a recession is possible if financial markets panic once again.

The task of restoring confidence to financial markets falls most heavily on the Federal Reserve. Monetary policy in 1988 has to walk a tightrope. If the Federal Reserve loosens too quickly it risks a sharp drop in the dollar as foreign investors lose confidence in the commitment of the Federal Reserve to control inflation. At the same time, if the Federal Reserve waits too long to loosen the chances of recession increase. Monetary policy operates on the economy with very long and variable lags, as Milton Friedman has often pointed out. If monetary policy is to be used to fight recession, the looser monetary policy has to be in place before the recession begins. At the present time, the Federal Reserve is waiting to see the whites of the recession's eyes before it alters monetary policy; unless its eyesight is very good, it risks acting too late.

On the whole, I wish that the Fed were a little more afraid of recession right now and a little less afraid of inflation. Excluding the volatile food and energy components, inflation has been remarkably steady for the last four years, and I see little sign, in wage negotiations or anywhere else, of any sudden acceleration of inflation. Much has been made of day-to-day or week-to-week movements in commodity prices, but it is hard to argue that commodity prices are going up too fast now; oil prices are moving down and the overall Journal of Commerce commodity price index, the broadest and perhaps the best of those available, has been essentially flat since July. The only major inflationary push in the economy is from import prices, which are the other side of becoming more competitive in the world marketplace.



The U.S. economy became seriously unbalanced during the 1980s. The Federal Reserve has been forced to maintain too tight a monetary policy because federal deficits have been so high. A continued high Federal deficit makes it almost impossible to use fiscal policy to fight a recession, and makes it harder to change monetary policy. We have reached a stage where looser fiscal policy is counterproductive. Higher federal deficits cause financial markets to lose confidence, pushing interest rates up. These higher interest rates may slow the economy as much as the higher government spending boosts it.

Although it seems counterintuitive to call for a tighter fiscal policy at a time when the economy is facing recession, it may make sense now. The confidence of financial markets is a key to avoiding recession, and that confidence can best be maintained by steady progress in reducing the federal deficit. This progress is also important for the trade deficit. It is the imbalance between saving and investing in our economy that has produced the trade imbalance. The U.S. economy has been borrowing more than it has been willing to save since 1981, and the gap has been funded by inflows from Japan, Germany and the rest of the world. The U.S. economy has been consuming about 4% more than it has been producing; this 4% is the $170 billion trade deficit that we registered in 1987. Closing that trade gap requires bringing U.S. consumption down to the level of U.S. production, or in other words bringing borrowing and saving back into line. If we do not do it by reducing federal spending, we will probably be forced to do it by increasing private saving, which could cause a recession.

The other major threat to the stability of financial markets and the economy is the trade bill. The circumstances of today are not those of 1930 and the trade bill under consideration is not Smoot-Hawley Mark II. Nevertheless, the parallels are all too clear for the financial markets. The trade bill imposes two major risks on the economy: the first risk is that foreign governments, being told they cannot sell to the U.S., will stop buying from us. As we have said earlier, the continued growth of U.S. exports is needed to keep us out of recession in 1988. A slowing of export growth, unless fully balanced by a drop, not just a slowdown in imports, would make recession more likely.

A second risk is that foreign investors will be scared by the possibility of a trade war and will try to pull their money out of U.S. financial markets. This outflow would result in a sharp jump in long-term interest rates as the bonds that foreigners have acquired during the 1980s are dumped onto the market.

In the 1930s, of course, retaliation forced trade downward. World trade plunged 50% between 1930 and 1932--one of the major factors, along with a drop in the U.S. money supply, that turned the 1929 crash into the depression of the 1930s. Possibilities for retaliation are, it should be noted, less today than they were in 1930. In 1930 the U.S. was running a surplus (making the Smoot-Hawley tariff even harder to understand,) while today, exports are barely half the level of imports. As a result, foreign governments now have far more to lose by retaliating than they have to gain. Unfortunately, economic common sense and politics do not always point in the same direction.

I would like to thank Chairman Sarbanes and the Members of the Committee for giving me this opportunity to express my views. Our overall conclusion is that the U.S. economy will be slowing down in 1988, but that unless some major policy errors are made, a recession will be avoided.

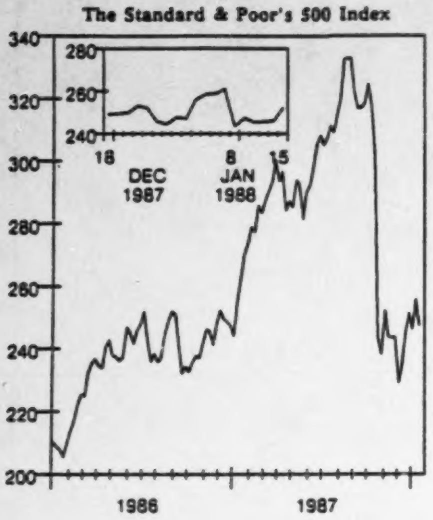
AFTER THE CRASH

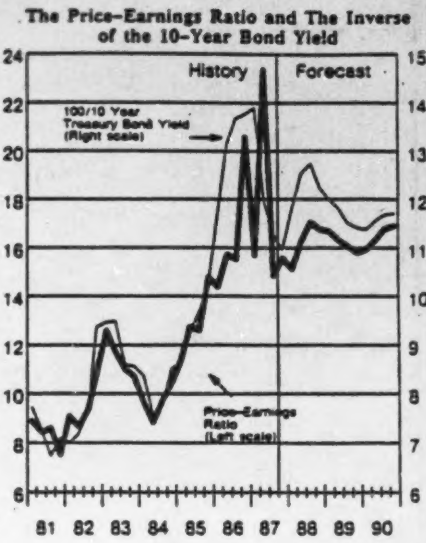
- October 19 was the sharpest drop in stock market history.
- The crash has hurt consumer spending,
- But consumer confidence has been shaken only moderately.
- The continued turnaround in trade will avert a recession.
- Strong export growth is needed.
- Interest rates must drop.
- The Fed is understandably reluctant to loosen before evidence of a slowdown is clear,
- But risks acting too late.
- Major imbalances reduce the room to maneuver, and must be cured to restore confidence.
- The stronger dollar is helpful, but temporary.
- Miscalculations could still push the economy into recession in 1988 or 1989.

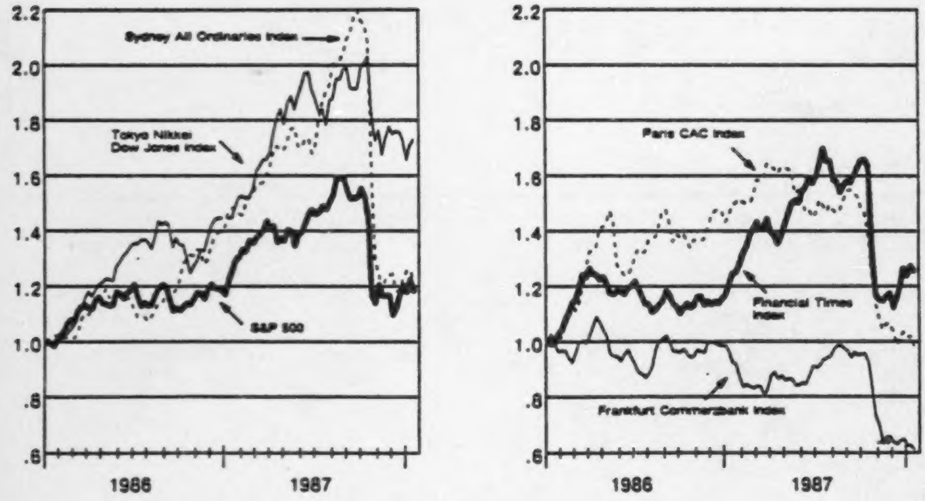
DRI Forecast for the U.S. Economy: INTERIM010788

	1987			1988				Years				
	2	3	4	1	2	3	4	1986	1987	1988	1989	1990
Composition of Real GNP (Annual rate of change)												
Gross National Product	2.5	4.3	2.5	0.4	1.0	2.6	3.1	2.9	2.8	2.0	3.5	2.8
Final Sales	3.5	6.0	2.1	2.8	1.4	1.9	3.3	2.8	2.2	2.7	3.1	2.7
Total Consumption	1.9	5.4	-1.9	1.3	1.0	1.6	1.1	4.2	1.9	1.2	1.9	2.2
Nonresidential Fixed Investment	11.7	25.8	6.4	-3.0	3.0	-1.9	0.8	-2.3	1.3	4.4	1.9	3.7
Equipment	16.5	28.4	10.6	-2.8	4.9	-2.0	1.5	2.9	4.1	5.9	2.0	3.9
Structures	0.0	24.6	-4.1	-3.5	-2.0	-1.6	-0.9	-12.8	-5.2	0.4	1.5	3.1
Residential Fixed Investment	-2.8	-6.5	-9.4	-4.5	-2.8	4.7	9.9	12.5	-1.1	-3.3	5.9	-0.1
Exports	17.9	23.7	5.4	10.4	9.7	11.2	12.6	3.3	12.1	11.5	11.1	7.6
Imports	11.1	22.4	-5.1	-12.0	1.8	2.6	-2.8	10.5	6.3	-0.5	-0.2	2.7
Federal Government	6.6	4.5	14.9	-7.2	-4.0	-1.8	-0.1	2.5	1.1	0.7	-0.9	0.3
State and Local Governments	1.7	1.2	3.8	0.9	0.5	0.6	0.7	4.8	3.1	1.4	0.8	1.4
Billions of Dollars												
Real GNP (1982 $)	3795.2	3835.9	3859.3	3863.2	3873.2	3898.1	3920.4	3713.3	3815.7	3888.7	4020.2	4140.6
Gross National Product	4445.1	4524.0	4589.5	4624.1	4669.3	4738.1	4814.1	4235.0	4488.1	4711.4	5057.0	5432.4
Prices and Wages (Annual rate of change)												
Implicit Price Deflator	3.5	2.9	3.5	2.6	2.9	3.4	3.3	2.6	3.0	3.0	3.7	4.5
CPI--All Urban Consumers	4.9	3.9	3.8	3.5	4.1	4.4	4.4	1.9	3.7	4.0	4.4	4.8
Producer Price Index--Finished Goods	4.6	2.5	0.0	1.9	4.4	5.0	4.5	-1.3	2.1	2.8	4.9	4.6
Compensation per Hour	3.1	3.7	4.5	4.7	3.6	3.9	4.3	1.9	2.9	4.1	4.9	5.7
Output per Hour	1.5	3.4	0.5	-0.6	0.1	1.8	1.8	1.7	0.7	0.9	2.1	1.2
Production and Other Key Measures												
Industrial Production (1977=1.000)	1.282	1.309	1.323	1.311	1.311	1.327	1.345	1.251	1.296	1.323	1.388	1.441
Annual Rate of Change	4.3	8.6	4.2	-3.3	-0.1	4.9	5.5	1.1	3.6	2.1	4.9	3.8
Nonfarm Inven Accum (Billion 1982 $)	22.7	12.1	30.8	4.7	0.9	7.5	8.1	15.4	27.4	5.3	21.5	25.0
Housing Starts (Mil units)	1.612	1.623	1.576	1.516	1.519	1.599	1.660	1.819	1.651	1.574	1.691	1.668
Retail Unit Car Sales (Mil units)	10.0	11.5	10.0	9.9	9.8	9.8	9.8	11.4	10.3	9.8	9.9	10.0
Civilian Unemployment Rate (%)	6.2	6.0	5.9	5.9	5.9	6.0	6.0	7.0	6.2	5.9	5.6	5.1
Federal Budget Surplus (NIPA, billion $)	-139.2	-136.1	-159.1	-173.1	-166.8	-165.8	-164.8	-204.7	-151.2	-157.6	-140.7	-116.8
Foreign Trade												
Current Account Balance (Billion $)	-164.8	-173.5	-164.6	-143.9	-142.7	-141.4	-130.0	-141.4	-162.5	-139.5	-115.5	-104.7
Merchandise Trade Balance (c.i.f., billion $)	-168.1	-173.9	-165.1	-148.2	-150.4	-150.1	-139.6	-156.2	-169.7	-147.1	-125.8	-117.4
U.S. Dollar Exchange Rate (% change)	-11.8	4.9	-19.3	-20.9	-6.2	-8.4	-6.9	-16.7	-11.1	-12.1	-6.0	0.9
Foreign Industrial Production (% change)	4.9	9.4	1.7	0.1	0.2	1.9	1.8	1.4	2.8	2.2	2.0	2.8
Financial Markets												
Money Supply (M2, billion $)	2840.6	2862.2	2894.9	2935.6	2987.2	3032.8	3056.6	2779.6	2894.9	3056.6	3247.9	3486.9
Percent Change vs Year Ago (Q4/Q4)	7.3	5.4	4.1	3.9	5.2	6.0	5.6	9.0	4.1	5.6	6.3	7.4
New AA Corp Utility Rate (%)	9.28	9.79	10.34	9.84	9.37	9.18	9.78	8.94	9.50	9.44	9.84	9.95
Thirty-Year Treasury Bond Rate (%)	8.53	9.07	9.22	8.85	8.35	8.17	8.90	7.80	8.58	8.42	8.74	9.09
Treasury Bill Rate (%)	5.66	6.04	5.87	5.66	5.25	5.15	5.62	5.98	5.78	5.42	6.10	6.29
Federal Funds Rate (%)	6.65	6.84	6.91	6.51	5.78	5.68	6.06	6.81	6.66	6.01	6.91	7.25
Prime Rate (%)	8.05	8.40	8.87	8.50	7.55	7.08	7.42	8.33	8.20	7.64	8.21	8.70
S&P Index of 500 Common Stocks	293.27	319.37	254.72	237.44	244.19	252.10	257.94	236.35	286.67	247.92	266.46	274.81
Incomes												
Personal Income (Billion $)	3708.6	3761.0	3846.5	3891.5	3933.1	3987.4	4047.5	3534.3	3744.5	3964.8	4237.0	4563.0
Real Disposable Income (% change)	-4.3	4.5	3.8	3.3	0.1	1.7	1.3	4.0	1.1	2.1	2.0	2.3
Saving Rate (%)	3.0	2.8	4.1	4.6	4.4	4.4	4.5	4.4	3.6	4.4	4.7	5.0
Profits Before Tax (Billion $)	268.7	284.9	275.4	246.5	238.0	253.8	272.7	231.9	271.5	252.7	304.0	315.1
Profits After Tax (Billion $)	134.5	141.9	136.1	120.8	118.0	125.5	134.2	126.9	135.4	124.6	149.1	156.1
Post-Tax Corp Cash Flow (Billion $)	457.0	469.8	465.8	454.3	447.8	449.8	459.5	462.3	462.6	452.9	469.8	477.8
Percent Change vs Year Ago	-0.9	1.1	2.0	-0.7	-2.0	-4.2	-1.3	2.7	0.1	-2.1	3.7	1.7

THE CRASH


The Standard & Poor's 500 Index


The Price-Earnings Ratio and The Inverse of the 10-Year Bond Yield


International Stock Markets Indexed to January 1986

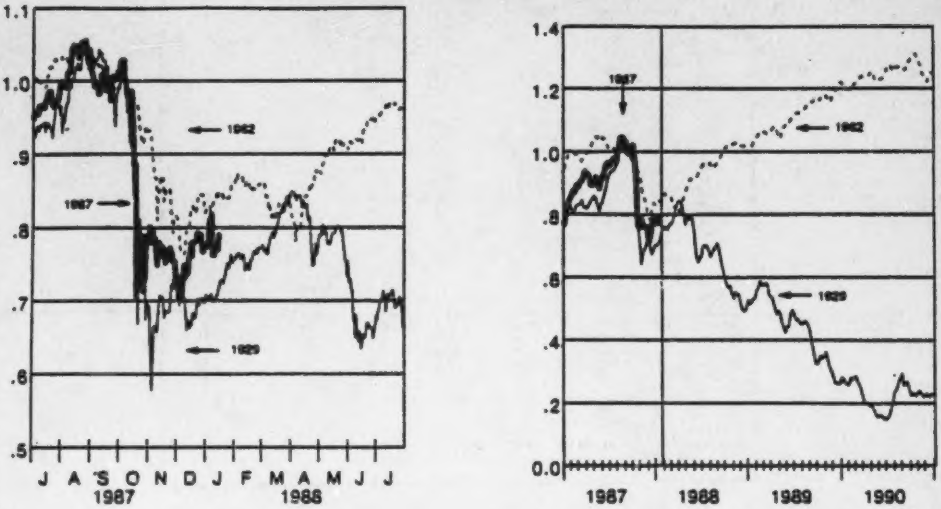
BEAR MARKETS AND THE ECONOMY

BEAR MARKETS						RECESSIONS				
Peak	Trough	Decline %	Retrace-ment%	Rise %	Duration (months)	Peak (lag)	Trough (lag)	Duration (months)	GNP%	Industrial Production
9/7/29 (31.92)	6/1/32 (4.40)	86	100	325	33	8/29 (-1)	3/33 (9)	43	30	54
3/5/37 (18.68)	3/31/38 (8.50)	55	71	126	13	5/37 (2)	6/38 (3)	13	6	33
10/25/39 (13.21)	4/28/42 (7.47)	43	122	55	30	2/45 (64)	10/45 (42)	8	2.0*	38
5/30/46 (19.25)	6/13/49 (13.55)	30	53	97	37	11/48 (18)	10/49 (4)	11	1	10
1/5/53 (26.66)	9/14/53 (22.71)	15	30	119	8	7/53 (6)	5/54 (4)	10	3	10
8/2/56 (49.74)	10/22/57 (38.98)	22	40	56	15	8/57 (12)	4/58 (6)	8	3	14
8/3/59 (60.71)	10/25/60 (53/30)	14	34	36	15	4/60 (8)	2/61 (4)	10	1	9
12/12/61 (72.64)	6/26/62 (52.32)	28	105	80	6	**				
2/9/66 (94.06)	10/7/66 (73.20	22	50	48	8	**				
11/30/68 (108.4)	5/26/70 (69.3)	36	106	51	17	12/69 (13)	11/70 (6)	11	1	7
4/28/71 (104.8)	11/23/71 (90.2)	14	41	33	7	**				
1/11/73 (120.2)	10/3/74 (62.3)	48	193	73	22	11/73 (10)	3/75 (5)	16	5	15
9/21/76 (107.8)	3/6/78 (86.9)	19	46	36	17	**				
2/13/80 (118.4)	3/27/80 (98.2)	17	64	43	1	1/80 (-1)	7/80 (4)	6	2	5
11/28/80 (140.5)	8/12/82 (102.4)	27	90	229	18	7/81 (8)	11/82 (3)	16	3	11
8/25/87 (336.8)	10/19/87? (224.8)	33	48		2	? ?				

* Annual increase for 1945
** No associated recession

HISTORICAL PERSPECTIVE

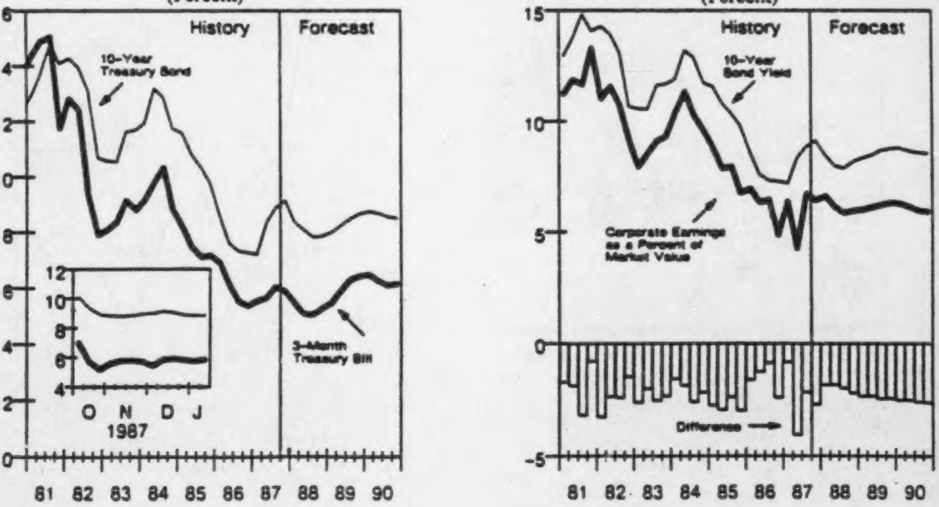
Comparison of Stock Market Crashes
(S&P Index, immediate pre-crash peak = 1.0)



Interest Rates Must Drop After The Crash

Key Interest Rates
(Percent)

Competing Yields on Stocks and Bonds
(Percent)



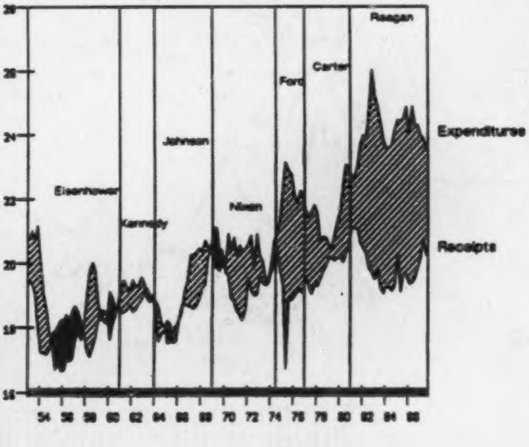
U.S. STILL NEEDS INFLOWS OF FOREIGN CAPITAL

Net Saving and Investment
(Percent of GNP)

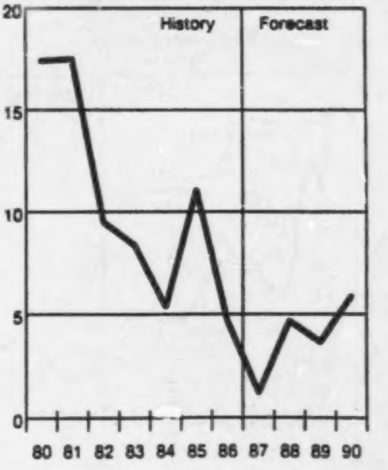
	Net Personal Saving	Net Business Saving	State and Local Surplus or Deficit	Federal Surplus or Deficit	Net National Saving *	Capital Outflow (-) or Inflow (+) from Abroad	Net Domestic Investment **
1976	5.4	2.6	0.9	-3.0	5.8	-0.5	5.4
1977	4.6	3.1	1.4	-2.3	6.7	0.4	7.3
1978	4.9	3.1	1.3	-1.3	7.9	0.4	8.5
1979	4.7	2.5	1.1	-0.6	7.6	-0.1	7.7
1980	5.0	1.4	1.0	-2.2	5.1	-0.4	4.7
1981	5.2	1.4	1.1	-2.1	5.7	-0.3	5.2
1982	4.9	0.6	1.1	-4.6	2.0	0.0	2.0
1983	3.8	1.9	1.4	-5.2	2.0	1.0	3.9
1984	4.4	2.5	1.7	-4.5	4.1	2.4	6.5
1985	3.2	2.5	1.6	-4.9	2.3	2.9	5.2
1986	3.1	2.2	1.3	-4.8	1.8	3.4	5.2
1987	2.5	1.6	1.0	-3.4	1.8	3.4	5.2
1988	3.2	0.9	0.9	-3.6	1.4	2.9	4.3
1989	3.4	0.7	1.2	-2.9	2.4	2.2	4.6
1990	3.6	0.5	1.2	-2.2	3.0	1.8	4.9
1950-54	4.7	2.6	-0.2	0.1	7.3	0.1	7.6
1955-59	4.7	2.9	-0.3	0.1	7.5	-0.4	7.3
1960-64	4.4	3.3	0.0	-0.3	7.5	-0.8	6.7
1965-69	4.8	3.7	0.0	-0.3	8.2	-0.4	7.8
1970-74	6.0	2.2	0.6	-1.2	7.6	-0.3	7.5
1975-79	5.2	2.7	1.0	-2.3	6.6	-0.2	6.5
1980-84	4.7	1.6	1.3	-3.7	3.8	0.5	4.3
1985-89	3.1	1.6	1.2	-3.9	2.0	3.0	4.9
1990-94	3.7	0.4	1.1	-2.0	3.2	1.7	4.8
1995-99	3.9	0.3	1.2	-1.5	3.9	1.2	5.1

* Net national saving is the sum of columns 1 through 4.
** A statistical discrepancy is omitted from this table.

Federal Expenditures and Receipts
(Percent of GNP)

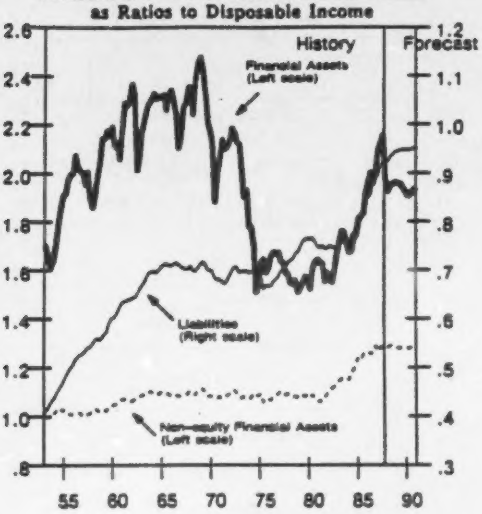


Federal Spending Growth
(Percent change, unified budget basis, fiscal years)

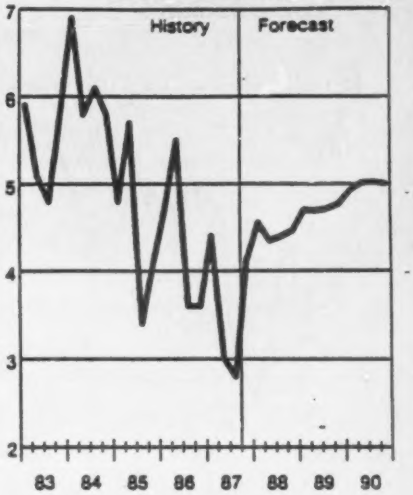


CONSUMERS ARE BECOMING MORE CAUTIOUS

Household Financial Assets and Liabilities as Ratios to Disposable Income

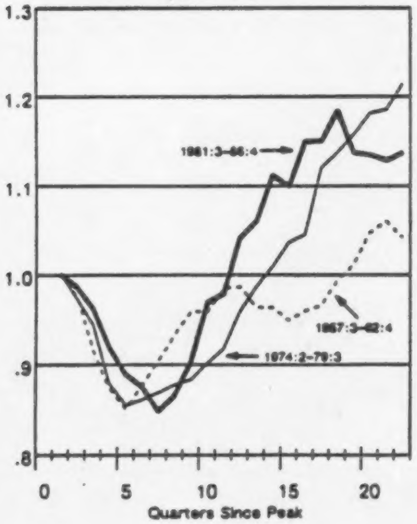


The Personal Saving Rate

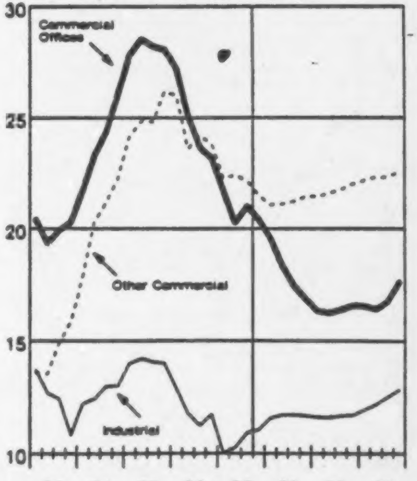


Investment Follows Spending

The Cycle in Business Fixed Investment
(Peak=1.0)

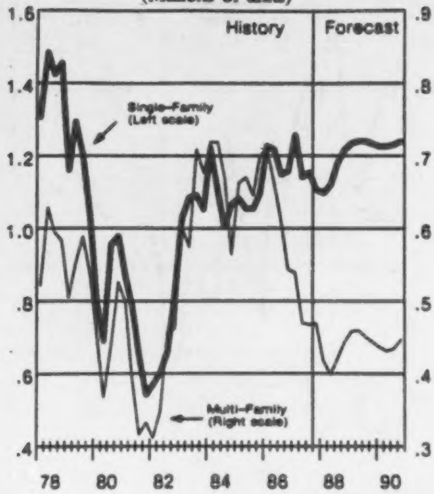


Investment in Nonresidential Buildings
(Billions of 1982 dollars)

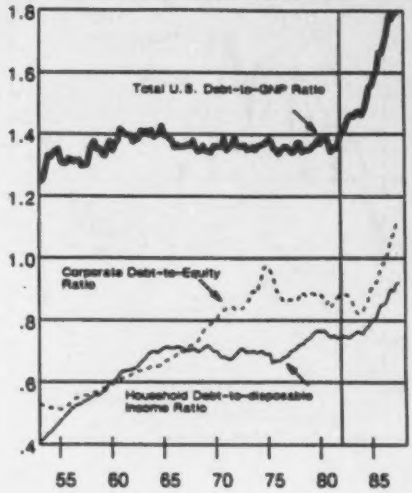


HOUSING WILL SOFTEN

Single- and Multi-Family Housing Starts
(Millions of units)

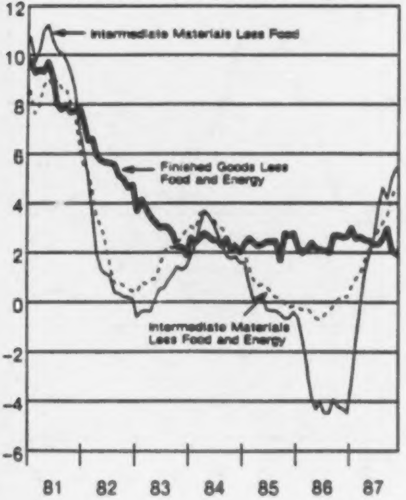


Debt-to-Income Ratios

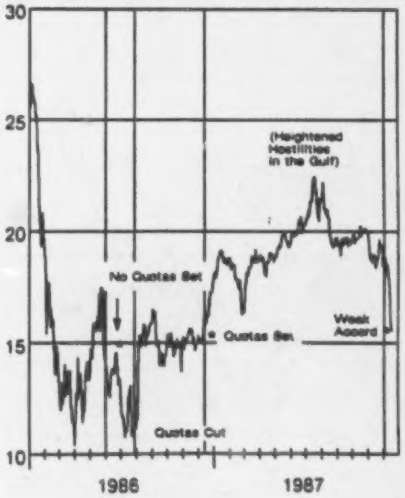


INFLATION REMAINS MODERATE

Producer Price Inflation
(Year-over-year percent change)

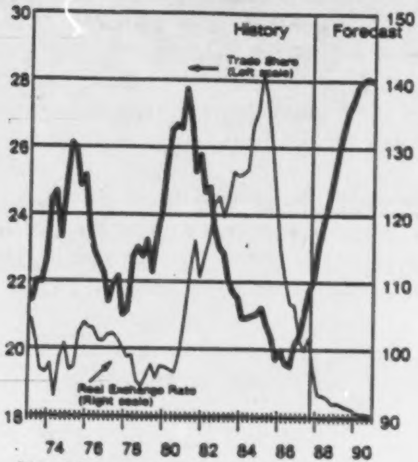


Oil Price Impacts of OPEC Meetings
(Crude oil spot price, West Texas Intermediate)



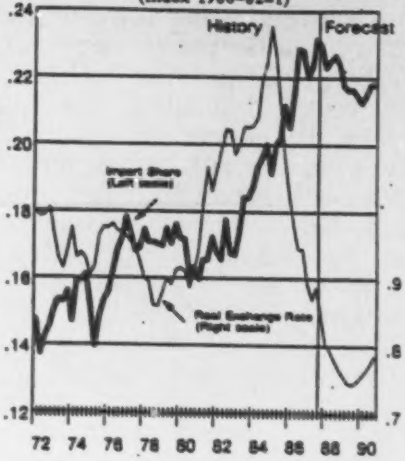
THE DOLLAR DROPS AND TRADE BEGINS TO TURN

U.S. Export Volume as Share of Seven Industrial Countries* and Real Effective Exchange Rate

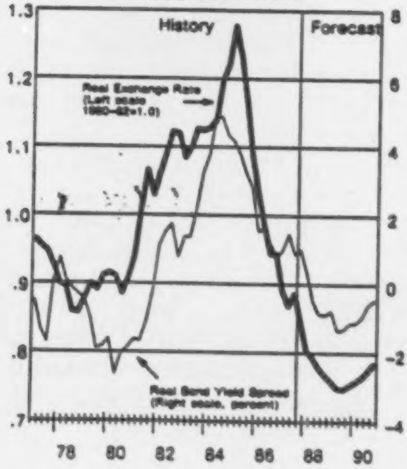


*Canada, France, Germany, Italy, Japan, United Kingdom, and United States.

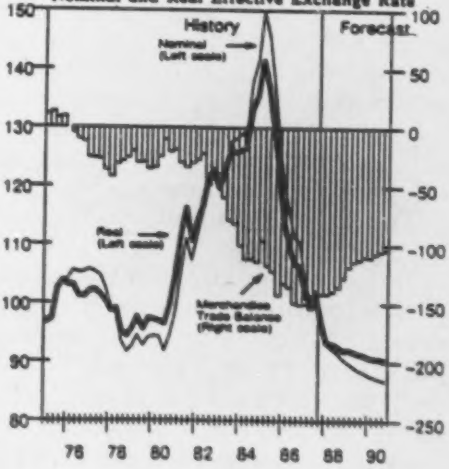
Real Goods Imports (except petroleum) As a Percent of Domestic Spending And the Real Exchange Value of the Dollar (Index 1980-82=1)



The Dollar's Real Exchange Rate and the Spread Between Real U.S. and Foreign Bond Yields



U.S. Merchandise Trade Balance and Nominal and Real Effective Exchange Rate



Senator SARBANES. Professor Havrilesky, please proceed.

STATEMENT OF THOMAS HAVRILESKY, PROFESSOR OF ECONOMICS, DUKE UNIVERSITY

Mr. HAVRILESKY. Like most of the comments that preceded mine, I am going to come down on the side of opposing easy money.

Very similar policy, recession versus inflation dilemmas, have occurred in the past: in 1968, in 1974, and in 1980. At that time you may recall that there were similar choruses that called for easy money. My concern is not for this year or for the very near future, but for longer run consequences.

You will recall that the monetary policies of the late 1960's and early 1970's weakened the world's primary currency, the dollar. And this weakening played a large part, I think, in the oil price shocks of the 1970's, which of course were in turn related to the international debt crisis.

With these kinds of concerns in mind, I would rationalize supporting firmer monetary policy or a continuance of firm monetary policy.

Another point that is implicit in my prepared statement is that every time certain sectors of the economy historically encounter problems, problems of economic drag or sectoral recession, there are always cries for easier money. This occurred when interest rates rose in the late 1960's. It occurred in 1973, in 1974. It occurred in the late 1970's.

The pressure for easier monetary policy, of course, emanated from interest-sensitive sectors of the economy. Similar pressures arose a few years ago as the dollar rose in value against foreign currencies. But in this case, the pressures emanated from export-oriented and import-sensitive sectors of our economy. The consequences in all cases in the longer run are dire.

Now I would like to turn and read some excerpts at least from my prepared statement.

The macroeconomic policies of every administration in the postwar period seem to have followed what may be called an electoral cycle. In an administration's early years when redistributive campaign promises are forged into programs but the allocation of the related costs is still uncertain, there is a definite honeymoon period. As these programs take effect and their costs are borne disproportionately in certain sectors of the economy, an interval of rising dissension, reassessment of policy objectives, and realignment of power within the administration typically sets in.

The final stage of the electoral cycle occurs typically in the last years of an administration's tenure. It culminates in a desultory phase, usually associated with "no win economic policy tradeoffs," typically inflation versus recession. This is the sort of discussion that we are going to encounter this year.

Over the past 40 years, the electoral cycle appears to have become more pronounced. During the Eisenhower era, the descent from the consensual economic moderation of its early years to the chronic recessionary ills of the 1958–60 period seem relatively mild when compared to the decline from Kennedy's romantic centralism to the inflationary cognitive dissonance that plagued the last year of the Johnson regime. However, both of these were beginner's slope slides when compared to the honeymoon-to-hell economic policy trajectories of the Nixon and Carter administrations.

It is titillating to speculate about reasons for this cyclical pattern. My theory is that the redistributional or fiscal policies that help a regime gain power present a set of disincentives for productive effort that ultimately bog down the economy or at least certain sectors of the economy. The ensuing overall or sectoral recessions then elicit pressures for monetary stimulus that, if effected, culminate in classic no-win, recession-versus-inflation tradeoff.

What concerns me today is that the Reagan administration appears to prove no exception to the electoral cycle. The early Reagan administration initially embraced two ultimately irreconcilable macroeconomic policies. On the one hand was the old-time religion of sound monetary policy that was imposed on a morally wounded Carter administration by a Federal Reserve anxious to evade responsibility for high and rising interest rates in 1979 and 1980.

On the other hand were the supply-side economic policy tax cuts whose redistributional implications were instrumental in the Reagan regime's ascending to power.

I want to emphasize the notion that these policies were ultimately irreconcilable because, at the time when practically everyone was on the Kemp-Roth bandwagon, no one knew for certain that we would neither grow our way out of the ensuing increase in the budget deficit nor, failing to do so, reduce Federal expenditures.

However, a survey of the informed opinion prevailing at the time will show that by 1982, most analysts thought that a failure to reduce the tax-cut-induced deficit would lead to higher interest rates that would crowd out private domestic investment spending. Foreign saving was not thought to be responsive enough to domestic interest rates to avoid this type of crowding out.

In fact, prior to the 1980's, increases in the Federal deficit were correlated with increases in domestic saving and decreases in domestic investment spending.

After 1982, however, we got a surprise. As deficits averaged about 5 percent of GNP, foreign saving flows into the United States proved quite responsive to high real domestic interest rates, perhaps because of the increased default risk associated with LDC debt, liberalization of Japanese foreign exchange laws, and the repeal of the withholding tax on interest paid to foreigners.

The tremendous inflow of foreign saving suppressed increases in domestic real interest rates, but drove the value of the dollar upward against foreign currencies. The resulting rise in the value of the dollar led to crowding out of expenditures, not in interest-sensitive sectors, but in export-oriented and import-sensitive sectors of our economy.

This form of crowding out propelled the Reagan administration into the middle, internal dissension, policy reassignment, and power realignment phase of the electoral cycle. The redistributive tax cut policies that helped it into office generated a recessionary drag on certain sectors. Internal realignments allowed the Reagan team to reconcile its fiscal difficulties with its monetary conservatism in the time-honored way of simply forsaking the latter.

Students of economic history are aware that great monetary expansions of this century here and abroad have always come on the heels of promised income redistributions that put the party in government into power.

During election campaigns and during the initial period in office, it is usually not entirely clear which groups or sectors will bear the costs of these promised redistributions. Sooner or later, however, the "no gain, no pain" principle becomes apparent. Redistributions of any significance will alienate the groups that bear the burden, dissension will mount, and at this point the ruling regime must reassess its objectives and look for relief. Usually relief is spelled M-O-N-E-Y.

Money supply explosions have regularly been used to try to circumvent the adverse political consequences of income redistribution policy. Until 1984, there is considerable evidence that the Reagan administration played an active hand in directing the Federal Reserve in a usually conservative monetary policy stance. Then in 1985, probably because of the mounting sectoral difficulties associated with the trade deficit, there occurred a number of significant realignments.

Proponents of the old-time religion of sound money within the administration were silenced. A host of supply-side appointments were made to the Board of Governors of the Federal Reserve. Intervention in international currency markets became the rule instead of the exception, and an official "hands off" posture was assumed toward the now easy money oriented Federal Reserve.

There followed a number of shifts in policy. In order to reduce the U.S. external imbalance, a depreciation of the dollar was encouraged. Explosive growth in the U.S. monetary aggregates was ignored on the specious grounds that velocity would continue to fall. Monetary policy came to be governed not by rules, but by the personality and judgment of officials. The spectacle of an allegedly managed currency without a managed deficit or a managed money supply, all pivoting on an official discretionary juggling act, began to unravel last spring.

Foreign investors realized that the U.S. inflation could accelerate, the budget deficit might not be reduced, and that the declining dollar could erode the value of their dollar-denominated assets. Interest rates rose in order to reflect these expectations and to maintain the attractiveness of U.S. assets. The supply of foreign saving to finance the Federal budget deficit could only be sustained at higher interest rates. The bulk of the U.S. current account deficit was being financed by foreign central banks. Without a decline in that deficit, foreigners would only finance at higher interest rates. The result was an end to the stock market speculative bubble, which in turn required Federal Reserve easing in order to forestall a possible recession at the expense of further decline in the value of the dollar.

In 1988, the administration and the Federal Reserve find themselves in the final desultory "no win" phase of the electoral cycle. The policies employed to cover up the adverse sectoral consequences of the administration's redistributive program are inflationary, but if they are terminated in order to prevent a further collapse of the dollar, interest rates will rise sooner rather than later, and recession will be risked.

Nevertheless, we cannot finance our current account deficit at declining real interest rates. The attempt to do so has exacerbated the dollar's decline. We cannot simultaneously have excessive government spending, inadequate tax receipts, and undervalued dollars. Should the dollar remain significantly undervalued, new inflationary pressures will mount. The speculative stock market bubble, fueled by easy money, has already burst. Sooner or later, the Federal Reserve will be forced, perhaps by economic collapse, perhaps by the anti-inflationary militants of a future administration, to return for a time to a consistent and predictable monetary policy. The electoral cycle will have come full circle.

Thank you.

Senator SARBANES. Thank you, sir.

[The prepared statement of Mr. Havrilesky, together with attachments, follows:]

PREPARED STATEMENT OF THOMAS HAVRILESKY

Monetary and Fiscal Policy and the Electoral Cycle

The macroeconomic policies of every Administration in the post-War period seem to have followed what may be called an electoral cycle. In an Administration's early years, when redistributive campaign promises are forged into programs, but the allocation of the related costs is still uncertain, there is a definite honeymoon period. As these programs take effect and their costs are borne disproportionately in certain sectors of the economy, an interval of rising dissension from these sectors, reassessment of policy objectives, and realignment of power within the Administration typically sets in. Finally, in the last years of an Administration's tenure, the electoral cycle culminates in a desultory phase, usually associated with no-win economic policy tradeoffs.

Over the past 40 years the electoral cycle appears to have become more pronounced. During the Eisenhower era the descent from the consensual economic moderation of its early years to the chronic recessionary ills of the 1958-1960 period seems relatively mild when compared to the decline from Kennedy's romantic centralism to the inflationary cognitive dissonance that plagued the last year of the Johnson regime. However, both of these were beginner's slope slides when compared to the honeymoon-to-hell economic policy trajectories of the Nixon and Carter Administrations.

It is tintillating to speculate about the reasons for this cyclical pattern. My theory, expounded in the last section of my attached paper, "Two Myths of Monetary and Fiscal Policy," is that the redistributional (fiscal) policies that help a regime gain power present a set of disincentives for productive effort that ultimately bog down the economy, or at least certain sectors of the economy. The ensuing overall or sectoral "recessions" then elicit pressures for monetary stimulus that, if effected, culminate in the classic, no-win, recession-or-inflation tradeoff. My research and the evidence I adduce to support my theory notwithstanding, what concerns me today is that the Reagan Administration appears to prove no exception to the electoral cycle.

The Evolution of Monetary and Fiscal Policy in the 1980s

The early Reagan Administration initially embraced two, ultimately irreconcilable, macroeconomic policies. On the one hand was the old-time-religion of the "sound" monetary policy that was imposed on the mortally-wounded Carter Administration by a Federal Reserve anxious to evade responsibility for the high and rising interest rates of 1979 and 1980. On the other hand ~~was~~ were the supply-side economic policy tax cuts whose redistributional implications were instrumental in the Reagan regime's ascending to power.

I want to emphasize the notion that these policies were ultimately irreconcilable because at the time, when practically everyone was on the Kemp-Roth bandwagon, no one knew for certain that we would neither grow our way out of the ensuing increase in the budget deficit nor, failing to do so, reduce federal expenditures. However, a survey of the informed opinion prevailing at the time will show that by 1982 most analysts thought that a failure to reduce the tax-cut induced deficit would lead to higher interest rates that would crowd out private domestic investment spending. Foreign saving was not thought to be responsive enough to domestic interest rates to avoid this type of crowding out. In fact, prior to the 1980s increases in federal deficits were correlated with increases in domestic saving and decreases in domestic investment spending.

After 1982, however, as deficits averaged about 5 percent of GNP, foreign saving flows into the U.S. proved quite responsive to high real domestic interest rates, perhaps because of the increased default risk associated with LDC debt, the liberalization of Japanese foreign exchange laws and the repeal of the witholding tax on interest paid to foreigners. The tremendous inflow of foreign saving suppressed increases in domestic real interest rates but drove the value of the dollar upward against foreign currencies, as foreigners had to convert their currencies into dollars before purchasing U.S. securities. The resulting rise in the value of the dollar led to crowding out of expenditures, not in interest-sensitive sectors, but in export-oriented and import-sensitive sectors of our economy.

This form of crowding out propelled the Reagan Administration into the middle, internal dissension, policy reassignment and power realigment phase of the electoral cycle. The redistributive tax-cut policies that helped it into office generated a recessionary drag on certain sectors of the economy. Internal realignments allowed the Reagan team to reconcile its fiscal difficulties with its monetary conservatism in the time-honored way of simply foresaking the latter.

Students of economic history are aware that the great monetary expansions of this century, here and abroad, have always come on th heels of promised income redistributions that put the party (or ruling coalition) in government into power. For example, many governments have ascended to office on the basis of promises to redistribute income to labor and many on the basis of promises to redistribute income to the urban and rural poor. Other governments have come to power on the basis of promised sectoral redistributions.

During election campaigns and in the initial period in office, it usually is not entirely clear which groups or sectors will bear the costs of an Administration's promised redistributions. Sooner or later, however, the "no gain-no pain" principle becomes apparent. Redistributions of any significance will alienate the groups or sectors that bear the burden. Dissension will mount. At this point, the ruling regime must reassess its objectives and look for relief. Usually, relief is spelled, "M-O-N-E-Y."

Money supply explosions have regularly been used to try to circumvent the adverse political consequences of income redistribution (fiscal) policy. While the money supply explosions of the Johnson, Nixon and Carter Administrations were preceded by different kinds of redistributions and the alienation of different sectoral interest groups, their reactive patterns were similar to those of the Reagan White House. Those who would object to this story in the name of politically-neutral, indpeendent Federal Reserve are directed to Appendix A, "The Federal Reserve as a Self-Protective Bureaucracy," and the two papers attached to this statement, "Two Monetary and Fiscal Policy Myths," and "Monetary Policy Signaling from the Adminstration to the Federal Reserve." While the Presidential Adminstrations do not always effectively direct monetary policy, the findings presented in these papers suggest that if they are unified enough to want to and hard pressed enough to need to, they will.

Until 1984 there is considerable evidence that the Reagan Adminsitration played an active hand in directing the Federal Reserve in a usually conservative monetary policy stance. Then, in 1985, probably because of the mounting sectoral difficulties associated with the trade deficit, which in turn was exacerbated by its budget deficit, there occurred a number of significant realignments. Proponents of the old time religion of sound money within the Administration were silenced, a host of supply-side appointments were made to the Board of Governors, intervention in international currency markets became the rule instead of the exception, and an official "hands off" posture was assumed toward the now easy money-oriented Fed.

There followed a number of shifts in policy: In order to reduce the U.S. external imbalance a depreciation of the U.S. dollar was encouraged. Explosive growth in the U.S. monetary aggregates was ignored on the specious grounds that velocity would continue to fall. Monetary policy came to be governed, not by rules, but by the personality and the judgment of officials.

The spectacle of an allegedly managed currency without a managed deficit or a managed money supply, all pivoting on an official discretionary juggling act, began to unravel last spring. Foreign investors realized that U.S. inflation could accelerate, that the budget deficit might not be reduced, and that the declining dollar could erode the value of their dollar-denominated assets. Interest rates rose in order to reflect these expectations and to maintain the attractiveness of U.S. assets. The supply of foreign saving to finance the federal budget deficit could only be sustained at higher interest rates. The bulk of the U.S. current account deficit was being financed by foreign central banks. Without a decline in the budget deficit, foreigners would finance only at higher rates. The result was an end to the stock market's speculative bubble which, in turn, required Federal Reserve easing in order to forestall a possible recession at the expense of further declines in the value of the dollar.

In 1988 the Administration and the Federal Reserve find themselves in the final, desultory, no-win phase of the electoral cycle. The policies employed to cover up the adverse sectoral consequences of the Administration's redistributive program are inflationary but, if they are terminated in order to prevent a further collapse of the dollar, interest rates will rise sooner rather than later and a recession will be risked.

Nevertheless we cannot finance our current account deficit at declining real interest rates. The attempt to do so has exacerbated the dollars' decline. We cannot simultaneously have excessive government spending, inadequate tax receipts and undervalued dollars. Should the dollar remain significantly undervalued, new inflationary pressures will mount. The speculative stock market bubble fueled by easy money has already burst. Sooner or later the Federal Reserve will be forced, perhaps by economic collapse, perhaps by the anti-inflationary militance of a future Adminstration, to return for a time to a consistent and predictable monetary policy. The electoral cycle will have come full circle.

Appendix

The Federal Reserve as a Self-Protective Bureaucracy

In the nation's financial press, the banking system is frequently represented as being in latent danger of collapse. Interest rates and exchange rates are usually portrayed as numbers selected by the monetary authority in order to produce the desired combination of inflation and unemployment and the desired trade deficit. While these myths have been expunged from the modern economics classroom, they persist partly because they "sell" the Federal Reserve. In the face of recent advances in economic theory, the Fed needs selling.

Contemporary research suggests that, rather than being cosmically ordained, banking instability is largley a product of the glowing incentives for risk-taking inherent in banking regulation combined with, bureaucratically-motivated, regulator bailouts of troubled banks. Self-serving Federal Reserve bureaucrats applaud the myth of imminent crisis in the nation's financial system. It rationalizes their staking out more regulatory turf.

Modern macroeconomic theory teaches that the interest rate is the price of real resources, saving out of income, and, like any market-determined price, it is notoriously difficult for government to control. Federal Reserve officials help to perpetuate the myth that the interest rate is the price of money or nominal bank credit, even though money and nominal bank credit are only paper and bookkeeping entries. Our Central Bankers want the public to receive such messages, because the only things they can control are nominal money and credit aggregates, not real resources.

Fed-orchestrated money supply shocks to the economy can only affect output and employment in very specific expectational environments. Central Bankers promote the notion that monetary policy can help produce a "correct" level of real income and employment for the economy. Such comforting words justify their dynastic ambitions.

Federal Reserve bosses have no use for advances in economic knowledge that threaten their hegemony. For example, the vaunted "experiment" with money supply growth targets in 1979-82, an implicit admission that the Central Bank really could not control interest rates, is now widely understood to have been a clever but cynical ruse. The Federal Reserve is apparently so singularly devoted to its bureaucratic self-preservation as always to reject any unwelcomed theoretical truth and never to relinquish any convenient theoretical falsehood.

The Federal Reserve's revealed theoretical nihilism contrasts tragically with its original promise as an institution. As it was originally conceived, the Federal Reserve embodied the Progressive ideal of high-minded technocrats assimilating the best that modern research can offer so that it might efficiently regulate in the public interest. Alas, this image of the Fed is an idle dalliance. The Boards, Committees, Councils, Directives, Targets and Procedures of today's Federal Reserve System have nothing to do with efficient or even understandable monetary policy. They are merely the Byzantine trappings of a self-protective bureaucracy, a bureaucracy that is about as independent of the White House as Latvia is of Moscow.

Two Monetary and Fiscal Policy Myths*

Thomas Havrilesky

Duke University

I. Introduction

Over the years the standard view of monetary and fiscal policy has been dominated by two myths. The first myth is that the Federal Reserve is an independent, politically neutral institution. This particular illusion repeatedly surfaces in various policy discussions. In the section which follows I shall review two new pieces of hard evidence which refute this concept. This is important because the premise of an independent, apolitical Federal Reserve obfuscates research and debate.

The second myth is that monetary and fiscal policy systematically attempt to maximize social welfare. This myth is on its last legs. It has been replaced by the more realistic premise that monetary and fiscal policy are manipulated so as to maximize the election chances of the incumbent government. It is posited that monetary policymakers manipulate their instruments so as to affect electorally favorable swings in market rates of interest, unemployment and inflation. This political approach thus explains the ambiguity of monetary policy pronouncements and wide swings in money growth. However, most political models do not try to explain when and how pressures are brought on the monetary authority to affect unemployment or interest rates, Cukierman (1986). The third section of this paper reviews some new papers that develop the hypothesis that electorally motivated income redistribution propels financial regulatory and fiscal policy and that monetary policy is used periodically to compensate for their adverse macroeconomic effects. If this is the true mission of monetary policy, income redistribution models are a most promising way to identify monetary regimes and eliminate the naivete that permeates the literature on macroeconomic policy modeling.

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*To appear in The Political Business Cycle: The Political Economy of Money, Inflation and Unemployment. Duke University Press, 1988, forthcoming.

II. Administration Influence on Monetary Policy

Costs and Benefits. The question of who has the greatest influence on the Federal Reserve is of no small interest. Later in this section I present new evidence that, despite formal control over the Federal Reserve enjoyed by Congress, the Administration often obtains the monetary policy that it wants. When viewed in terms of the costs and benefits to the parties involved, this perspective also has a good deal of intuitive appeal.

The costs to Administration officials of influencing the Fed officials would seem to be quite low because both groups understand the technical aspects of monetary policy and have frequent close contacts with one another.

The benefits to the Administration from such influences can obviously be formidable, as reflected in the theory of the political business cycle and corroborated by reaction function studies which reveal shifts in monetary policy under different Administrations.

The costs to Federal Reserve leaders who would resist signals from the Administration can be imposing.[1] The Federal Reserve System's autonomy, budgetary hegemony and supervisory authority would clearly be endangered if its leaders defied the Oval Office (or Congress). Therefore, in tacit exchange for its continued existence it is entirely reasonable to propose that the Federal Reserve must provide the Administration with the monetary policy it desires and must alternately serve as the Administration's whipping boy for macroeconomic misfortunes. In addition, I believe that this reciprocity requires that the Fed also must serve as the Administration's "sound money oracle," ceremoniously warning the White House not to succumb to pressures for lower interest rates. The latter posturing helps the Federal Reserve to solidify its nonpartisan image, gives the Administration a continuing excuse to avoid pressures for easier money, and, most importantly, sets the stage for successful periodic monetary surprises, whenever they are desired by the Administration.

The costs that recalcitrant Fed leaders could impose on the Administration are usually minimal. Because it was formed as a quasi-public organization, it is often said that the Federal Reserve has been able to build a constituency in the financial services industry.[2] Some researchers have argued that this constituency gives the Fed latitude in policy formulation. This may be true in bank regulatory matters where electoral consequences are rather remote and where policy, as described in the third section of this paper, has led to the technical insolvency of such a large number of depositary institutions that the Fed may enjoy considerable leeway to respond as "crisis manager." However, in monetary policy too much is immediately at stake electorally to allow the Federal Reserve to stray beyond its ceremonial oracle/whipping boy role.

In contrast to the Administration's control, Congress is not nowadays generally thought to have a strong grip on the reins of monetary policy, Wooley (1984). The vote-producing benefits from a Congressperson's involvement in monetary policy are typically minor compared to alternative, pork-barreling, activities. The costs of effective involvement in monetary policy are high because the issues are technical and contact with Fed officials is limited to occasional hearings and infrequent bills to modify Federal Reserve responsibilities.

Signaling. In a recent paper, I developed an index of signaling from the Administration to the Federal Reserve, SAFER.[3] The index is predicated on the fact that there are frequent direct communications between Administration and Federal Reserve officials on formal and informal levels. While these communications are seldom explicitly revealed (as it would jeopardize the Fed's nonpartisan, sound-money facade), it is assumed that the financial press efficiently extracts and disseminates the monetary policy content in them that is of value to financial market participants.

The index derives from all Wall Street Journal articles for the period from September 1, 1979, to December 31, 1984, which mention the views of any Administration official on monetary policy. (After 1984 there was a pronounced dearth in signaling.) Each article was retrieved and evaluated either +1, -1 or 0, based on whether the official wanted either ease, tightness, or no change in monetary policy. Independent checks revealed that no eligible articles were missed in the first pass and only a negligible number were improperly evaluated. The SAFER index is the simple weekly sum of these articles.

In ordinary least squares regressions cumulative three week totals of this signaling index (SAFER) were found to have a statistically significant impact on the first differences in the narrow money supply during the third week, (ΔM_t). A similar index of signals from Congress to the Federal Reserve (SCFER) had a marginally significant but perversely negative effect.

$$\underset{}{\Delta M_t =} \; \underset{(3.999)}{0.776} \; + \underset{(2.974)}{0.3141\,\text{SAFER}} \; - \underset{(-1.319)}{0.299\,\text{SCFER}} \qquad (1)$$

$$\text{DFE} = 274 \qquad \text{DW} = 2.56 \qquad \bar{R}^2 = .04$$

The results corroborate the view that the Administration and not Congress systematically influences monetary policy. When the index was decomposed into signals from Treasury, Council of Economic Advisors, Presidential and unidentified sources, only signals from Treasury and unidentified sources had a statistically significant impact on the weekly change in the money supply. In an estimated reaction function, monthly values of the SAFER index responded, significantly, as a dependent variable, to two variables which measure the state of the economy, changes in interest rates, Δi_t, and forecasted inflation, $\hat{P}_t$, but did not respond in a statistically significant way to forecasted changes in unemployment, $\Delta\hat{U}_t$:

$$\text{SAFER}_t = \underset{(2.266)}{1.246} \; - \underset{(-2.463)}{0.584\Delta i_t} \; - \underset{(-1.385)}{1.738\Delta\hat{U}_t} \; - \underset{(-2.405)}{16.255\hat{P}_t} \, . \qquad (2)$$

$$\text{DFE} = 58 \qquad \text{DW} = 1.68 \qquad \bar{R}^2 = 21$$

In other estimated reaction functions, month-ending values of the money supply, as a dependent variable, did not respond to these same state-of-the-economy measures but did respond to monthly totals of the SAFER index. Further tests indicated Granger causality from the index of signals to the money supply.

Federal Open Market Committee (FOMC) Dissent Voting. Further evidence of the influence of central government on the Federal Reserve may be found in the dissent voting records of FOMC members.[4] Assume that all Administrations typically have the well known easy-money, inflationary bias.[5] Assume further that appointments to the Board of Governors reflect that bias but are mitigated by the need to satisfy the representational demands of constituents. This means that the OMC as a whole will have a lesser inflationary bias than the Presidency. ~~that FOMC [illegible] reflect [illegible] of the [illegible] of individual C[illegible] to Administration signals~~. My conjecture is that individual FOMC members whose career backgrounds are closely associated with central government, including the Federal Reserve Board, will cast votes on FOMC policy directives that are consistent with that bias. They will tend to dissent on the side of ease from the mean as reflected in the directive. Individual FOMC members whose backgrounds do not indicate strong career ties to central government will tend to dissent on the side of tightness from the mean.

Time series data on the individual voting records and backgrounds of FOMC members were used to test this hypothesis. In the period from 1960 to 1983 there were 365 FOMC policy directives; of these, unanimity was achieved 180 times and there were 185 split decision votes. In the split decision votes there were 168 dissents on the side of tightness and 154 on the side of ease.

There was a remarkable consistency in the dissent voting of each member. Of all the members with more than five dissents only one, Governor Mills, dissented more than five times on the sides of both tightness and ease. The rest of the major dissenters consistenly opted either for dissent on the side of tightness or dissent on the side of ease.

In order to examine influences on the voting behavior of individual FOMC members, it was conjectured that members who had been closely identified with central government during their careers would tend to dissent from the FOMC directive on the side of ease. Two career measures suggest proximity to central government and a proclivity for dissent on the side of ease. These are the number of years the member served on the Federal Reserve Board (YRSFRB) and the number of years the member worked for the Federal government (YRSGOV). Career measures which indicate an absence of proximity to central government and a tendency to dissent on the side of tightness include: a binary variably indicating whether the FOMC member was a Federal Reserve President or not (PRES), the number of years the member worked at a Federal Reserve Bank (YRSFRBK), the number of years the member worked in academics (YRSACA), the number of years the individual worked at a private bank (YRSBANK), and the number of years the individual worked in private industry (YRSIND).

To test whether training in economics influenced dissent, we included the following binary variables: whether the person had a Ph.D. degree (PHD), whether the member attended an Ivy league school (IVY), whether the member had a business degree (BDEG), and whether the member had a law degree (LDEG). We also included the number of years the member worked as an economist (YRSECO).

Because members, like the FOMC as a whole, try to rationalize dissent by alluding to the state of the economy, we also included standard state-of-the-economy variables in the month prior to the meeting the change in the inflation rate (PCH), the change in unemployment (UCH), the change in the T-bill rate (ICH).

Using probit analysis, dissents on the side of ease were measured +1, dissents on the side of tightness as 0. The maximum likelihood estimates and their T-statistics are reported in Table I. (See footnote 4)

Of the proximity-to-central government variables, five of the eight were significant at the .05 level or better and each of these had the expected sign. The more of their career time spent away from central government, in academics, at private banks, or at Federal Reserve Banks, the more members dissented on the side of tightness; the greater the number of years on the Federal Reserve Board, the more members dissented on the side of ease.

Of the variables which purport to measure familiarity with economics, only one, the presence of an Ivy league degree, influenced dissent voting (on the side of tightness) in a significant manner. Of the state-of-the-economy variables, none had statistically significant estimates. Overall, the results are consistent with the notion that Administrations influence monetary policy.

Having presented evidence that Federal Reserve decisions are influenced by the Administration, we now ask why the Administration seeks to manipulate the economy. Much of the literature explains monetary surprises on the basis of a Kydland-Prescott game between a social-welfare maximizing Federal Reserve and wage setters, possessing different employment and inflation objectives and different information regarding private shocks to the economy.[6] The incredible ease with which these models solve the analytical problem in favor of Fed precommitment to a stable money supply feedback rule suggests that they are an inadequate way of explaining today's environment of repeated observed monetary surprises. In contrast, the assumption that the Fed is electorally motivated helps to explain the ambiguity of Fed pronouncements and large swings in money supply growth.[7] However, most electoral models do not illuminate the real sources of pressure for monetary surprise.

Table I

Dependent Variable: Individual FOMC Dissent Votes

Explanatory Variable	Maximum Likelihood Estimate	T-statistic
Intercept	2.181	4.336
PRES	-.958	-4.336
YRSIND	-.0314	-.9831
YRSLAW	-.0301	-.5151
YRSBANK	-0.282	-1.769
YRSACA	-.0575	-3.957
YRSGOV	.0051	.2373
YRSFRB	.0296	2.7103
YRSFRBK	-.0349	-2.1157
PHD	-.0206	-.0719
IVY	-.1542	-3.828
BDEG	.4401	1.367
LDEG	.0439	.1723
YRSECO	.0020	.1742
PCH	-.0367	1.278
UCH	.7901	1.167
ICH	-.0511	-.4317

Ease Dissents — 168

Tightness Dissents — 154

After over three decades of continual debate a standard article of faith for many researchers is that monetary surprises represent unanticipated Federal Reserve responses to strictly exogenous shocks, unanticipated shifts in Federal Reserve preferences for unemployment, inflation and interest rates or unanticipated changes in Federal Reserve operating procedures. These, essentially *ad hoc*, explanations are intellectually unsatisfying. I believe that generations of Fed-watchers applying their most arcane skills will make little progress toward explaining monetary surprises within monetary regimes until this article of faith is abandoned. I will argue that more realistic models should concentrate instead on the financial regulatory and fiscal sources of periodic signals for monetary surprise.

III. Electorally-Motivated Financial Regulatory, Fiscal and Monetary Policy

A major unanswered question is whether the political business cycle is caused by monetary policy's direct manipulation of short-run inflation-unemployment (Phillip's curve) relations in order to affect electoral outcomes or is the incidental side effect of its pursuit of other objectives (see the contributions by Lewin, Mitchell and Haynes and Stone in this volume). In this section I present evidence from three areas which supports the latter hypothesis: modern macroeconomic theory, a redistributive theory of financial regulation, and a redistributive theory of fiscal policy.

Modern Macroeconomic Theory. In the papers by Schneider and Frey and Beck in this volume mixed evidence is reported about whether state-of-the-economy variables really affect voting, especially in Congressional elections, and about whether state-of-the-economy impacts on voting outcomes really have any effect on the desires of policymakers. This is an elemental problem because, according to the rational expectations hypothesis, even if electorally motivated governments wanted consistently to manipulate unemployment and real interest rates, they could not do so systematically. In addition, even if governments could systematically manipulate these variables, it is highly unlikely that the old-fashioned textbook image of a temporally consistent, discretionary, macroeconomic stabilization-oriented fiscal policy has any validity. In contrast to this image, according to the public choice perspective discussed below, pre-election promises to change the spending, transfer and taxation programs of government reflect primarily redistributive objectives, not macroeconomic stabilization ones.

Of course, the confusion between redistributive and macroeconomic stabilization objectives that afflicts the theory of fiscal policy does not apply to the theory of monetary policy. It is clear that monetary policy may periodically be used to respond to the macroeconomic effects of various shocks. One problem for researchers is that the shocks and/or their effects on the macroeconomy are seldom strictly exogenous. For example, an exogenous shock which causes high interest rates has the effect of threatening the solvency of depository institutions. Thus, the effect to which the monetary policymaker may respond is often really a product of the regulatory policy regime and, perhaps, its interaction with (earlier) monetary policy. As another example, consider a shock which has the effect of causing high unemployment or high interest rates. The shock itself may be a lagged consequence of deliberate choices regarding spending, transfers and taxation made prior to the latest election. Thus, while the Federal Reserve appears to be concerned about rising unemployment or rising interest rates, the regulatory and fiscal policies of government are often really antecedents of the "shocks" to whose effects monetary policy _may_ respond.

The emphasis on "_may_" is important. If monetary policy attempted to compensate for the effects of too many shocks, it would lose degrees of freedom for producing desired short-run effects on real variables without an undesired rate of inflation. Consistent with the empirical results reported by Willett, Banaian, Laney, Merzkani and Warga in this volume, modern macroeconomic theory suggests a skepticism toward scenarios which require systematic accommodation of _any_ type of shock. In addition, this type of monetary policy activism would raise inflation uncertainty and increase the risk premium that is built into real interest rates. Thus, as discussed earlier, the Federal Reserve's role as a sound money oracle, backed up by reputation- and credibility-building intervals of steady money growth, sets the stage for successful monetary surprises.

By this reasoning, intermittent responses to the effects of shocks merely give the _appearance_ of Federal Reserve concern with real state-of-the-economy variables. In promoting this concerned image the Fed is perfectly free to choose the variables and assign weights to them _ex post_. As discussed by Lombra in this volume, this seat-of-the-pants policymaking with no precommitments is in the self protective interests of Fed leaders and the Administration officials who appear to direct them.

Moreover, the periodic _ex post_ appearance of Federal Reserve concern for the state of the economy found in reaction function studies does not generally translate into consistent statistical estimates of Federal Reserve responses to real state-of-the-economy variables. Even when separate estimates are generated for different political parties and different Administrations, there is typically no intertemporal consistency. This is, of course, consonant with the logic of much of the main-stream rational expectations thinking; if consistent reactions to real state variables were uncovered by market participants, the resulting policy would be ineffective. If we really want to identify the factors that motivate monetary policy we ought to examine the regulatory and fiscal antecedents of allegedly "exogenous" shocks.

A ~~Redistributive~~ Public Choice Theory of Financial Regulatory Policy. I am puzzled why researchers have ignored for so long the need for an economic theory of financial regulatory policy and its interface with the monetary policy regime. The chronic "omitted variables" and "inconsistent estimates" problems in empirical estimation of money demand relations are habitually allayed to "financial innovations in a changing regulatory and monetary policy environment." Instability in velocity and other behavioral macroeconomic relations and unreliability of structural models are frequently blamed on "switches in monetary policy."[9]

Financial regulatory and monetary policy changes are not a random walk. There appear to be, for example, systematic linkages between changes in monetary policy reigmes and changes in regulatory policy. For example, the (commercial loan theory of banking) monetary regime, that is implicit in the Federal Reserve Act of 1913 and that fueled the Great Depression, influenced the regulatory remodeling reflected in the Banking Acts of 1933 and 1935. As another example, the activist monetary policy regime that was established by the Accord of 1951 ultimately led to the regulatory revisions reflected in the Depository Institutions Deregulation and Monetary Control Act of 1980.

The conventional rationale for financial regulation is the concept of financial market failure. According to the ~~contagion~~ market failure theory of financial regulation, government's goal is assumed to be to reduce an externality, e.g., either the risk of an epidemiological breakdown of the nation's payments system or the costs of monitoring banks and certifying their safety. Collapse of the payments mechanism could conceivably arise from the existence of artificially low barriers to entry which creates an underconcentrated and overspecialized financial services industry and, with a sufficiently large decrease in deposits, requires the periodic exit of a large number of depositary firms. In other words, potential large scale breaches of deposit contracts by failed firms are viewed as a threat to the nation's payments mechanism. For decades this apparent threat (as well as the need for regulator assurance of bank safety) ~~has~~ have served as ~~the~~ *de jure* justifications for government's lender-of-last-resort and deposit insurance guarantees. The resulting moral hazard affords banks glowing incentives for risk-taking and gives rise to a web of ancillary geographic and product line regulations. Banks in turn successfully circumvent these ancillary regulations by financial innovations which alter their form, structure and production methods. This blend of excessive risk taking and incessant competitive change in an underconcentrated and overspecialized industry has produced a large and growing number of technically insolvent depositary institutions. Bureaucratic regulators are reluctant to shut down these institutions and to present Congress and the taxpayer with the tab, which could run into hundreds of billions of dollars. Instead of protecting the system from breakdown, regulators seem more intent on protecting their own regulatory turf.

The market failure theory of financial regulation cannot explain the persistence of large subsidies to *de facto* insolvent institutions at the expense of taxes on solid institutions and on taxpayers together with the persistence of a large number of banks. A public choice model of banking regulation, after Stigler and Peltzman, may be able to do this.[10]

In a recent paper[11] we model the political incumbent as choosing the vote-maximizing level of a subsidy for troubled banks and tax divided between solid banks and taxpayers (bank customers), all of whom forsee real income losses should ~~a~~ bank failure ~~contagion~~ occur. As the model yields the vote-maximizing number of banks, it is also a model of banking entry and exit. Comparative static experiments examine the effect of changes in political support from troubled banks, solid banks and bank customers arising from changes in the distribution of wealth, the distribution of voting rights and technological changes, on the level of the subsidy, the number of banks and the division of the tax burden. Results ~~and~~ suggest that the emerging, politically optimal re-regulatory package will [illegible] include sizable numbers of latently troubled banks, a few financial services [illegible] megaliths with heavily taxed banking entities and another turn of the screw for the U.S. taxpayer.

Redistributive regulatory policy traditionally is seen as resulting in waste and inefficiency. The more obvious manifestations of such economic waste have adverse electoral consequences, such as low or falling levels of real per capita income.[12] These problems can often be covered up with monetary surprises that are directed at lowering real interest rates or keeping them from rising. Thus, there would seem to be a link between the regulatory regime and monetary policy. My conjecture is that the greater the losses generated by financial regulatory policy, the greater the potential for attempts at monetary surprise.[13]

Attempts at monetary surprise also seem to increase whenever interest rate shocks, excessive risk taking and financial innovation force a critical number of financial institutions onto the garbage heap of *de facto* insolvency. Surprises are often justified and may even show up statistically as periodic sensitivity to high unemployment and high interest rates. Nevertheless, these ~~are~~ may not be the true causes of monetary surprise. In order to understand monetary regimes more must be understood about the linkages between financial regulatory policy and monetary surprises.

A ~~Redistributive~~ Public Choice Theory of Fiscal and Monetary Regimes. In the public choice literature, as discussed by Lewin and Mitchell in this volume, political parties are often seen as making redistributive promises in order to maximize future expected votes. In a recent paper[14] I envision this occurring in the following way. A promised redistribution of income from one income class to another gains expected votes as well as cash and noncash campaign contributions from the favored class but loses expected votes and campaign contributions from the class penalized by the redistribution. Thus, the redistributive promises of a political party embodied in its fiscal policy "platform" (and in its financial reguatory policy "platform," discussed earlier) depend on the voting and cash and noncash campaign contribution support or lack of support it can expect to muster from each income class over some planning horizon. Because redistributions must be financed by higher levels of taxation, they create disincentives for productive effort. If these disincentives are unanticipated when redistributive promises are made prior to an election, real income will fall after that election. Monetary surprises temporarily raise the level of aggregate real income. Therefore, the role played by moentary policy in such a scheme is to compensate for expected vote losses, including those arising form the current redistribution, in future elections with well-timed monetary surprises.

This view contrasts with the idea, featured in the contribution by Schneider and Frey in this volume, that electorally oriented fiscal and monetary policy are not as purposely redistributive as they are oriented toward improving the overall macroeconomy. This approach puzzles me since pre-election promises and voter expectations regarding the unemployment and inflation goals of either party are usually similar but their redistributive programs differ immensely, at least in the United States. In contrast, pre-election redistributive promises, e.g., Social Security, Medicare, agricultural subsidies, various tax preferences, etc., are the meat of practically every Presidential election campaign.

Pressures for monetary surprises emerge from the salient recognition that (fiscal and financial regulatory) redistributions distort supply decisions and lead to an undesirable low level of real income, labeled the "traditional Chicago view" by Willett and Banaian in their contribution to this collection. As monetary surprises temporarily increase real income, they increase expected votes. Thus the first prediction of my theory is that both conservative and liberal governments will engage in monetary surprises, as a concomitant of their redistribution policies, ceteris paribus; the greater the redistribution, the greater the surprise.

The model has a second prediction. If the conservative party is ideologically constrained not to redistribute to lower income groups, redistribution will increase when a liberal government comes to power. Thus a newly-elected liberal government will always be in greater jeopardy in the forthcoming election as the terms of trade shift with the disincentive effects. Since a newly-elected liberal government faces a greater risk of losing the next election than a newly elected conservative government, it has a greater incentive to engage in post-election monetary surprises. Thus, the two predictions of the model provide a nexus between fiscal redistribution, monetary surprise and inflation and lead to a positive theory of politics and inflation sought by Mitchell in his contribution to this collection.

In testing the second prediction for the 1952-1984 period by ordinary least squares regression, a variable which measured changes in the Presidency from conservative to liberal, CL_{t-1}, had a marginally statistically significant, positive impact on yearly money supply growth, M_t, while changes in government from liberal to conservative, CC_{t-1}, were significant and negative.

$$\dot{M}_t = 1.391 + 0.732\dot{M}_{t-1} + 1.6677CL_{t-1} - 2.0405CC_{t-1} . \qquad (3)$$
$$(1.902) \quad (5.4589) \quad (1.2910) \quad (-2.7324)$$

$$\bar{R}^2 = .49 \qquad DW = 1.68 \qquad DFE = 28$$

Moreover in an estimated reaction function the apparent sensitivity of monetary policy to unemployment disappears when a change-in-government variable is introduced. These results support the prediction that changes in government from conservative to liberal produce monetary ease just after the election.

The criticism could be made that the result in equation (3) really reflects greater sensitivity to unemployment by liberal governments than conservative governments since liberals are usually elected during recessions. This contention might derive from models in which the policymaker maximizes a social welfare function whose weights on unemployment and inflation change with changes in the political party of government. However, this view is controverted by the many reaction function studies which show conservative governments such as Nixon's to be more "sensitive" to unemployment that liberal governments such as Johnson's. Moreover, correlation between monetary policy and unemployment, such at those reported by Schneider and Frey in this book, does not necessarily imply causality. According to my theory, governments, liberal or conservative, engage in moentary surprise when necessary to help compensate for the adverse electoral consequences of their selected fiscal (redistribution) policy (and other shocks to the economy). Higher unemployment may be one of those consequences.

Because of the preceding criticism and because the change-in-government variable had only marginally significant effects on money growth, I tried a more direct approach and tested the first prediction of the model. This involved direct measurement of government expenditures which had an obviously less skewed distribution of benefits by income group than the distribution of earned income. I summed across government outlays on income security, veterans benefits, health and education and, because of growth in the size of government, expressed these "social expenditures" as a proportion of aggregate income, (S/Y). Because my theory of monetary policy predicts that increases in redistribution in the direction of less inequality may have a lagged adverse effect on the level of aggregate real income and hence beget a monetary surprise, first differences in this ratio were entered into a monetary policy reaction function. The result was

$$\begin{array}{lllll} \dot{M}_t = & -0.1679 & + 0.6317\dot{M}_{t-1} & + 0.2086\hat{U}_t & + 0.0761\hat{P}_t \\ & (-0.1364) & (3.7405) & (0.7054) & (0.6767) \\ & + 0.0083\Delta(S/Y)_t & + 1.6517CL_{t-1} & + 1.7768CC_{t-1} & \\ & (1.6220) & (1.2378) & (-1.5498) & \end{array} \tag{4}$$

$$\bar{R}^2 = .63 \qquad DW = 1.91 \qquad DFE = 25$$

where $\hat{U}_t$ is the (autoregressively) forecasted unemployment rate, $\hat{P}_t$ is the (autoregressively) forecasted inflation rate and $\Delta(S/Y)$ is defined above. Observations are for the period from 1952 to 1984. The change in the ratio of social expenditures to aggregate income had the predicted positive (marginally) significant effect on money growth. The forecasted unemployment and forecasted inflation variables did not have a statistically significant impact no money growth. Once again, this result supports our conjecture that apparent monetary policy concern for unemployment really reflects monetary surprises n the wake of sizable redistributions.[15] Finally, as in equation (3), the estimates for the change-in-government variables are marginally significant. When these variables are removed from the reaction function, the redistribution variable continues to have a positive significant effect on money growth. Overall, the statistical results provide support for the change-in-government and redistribution predictions of my theory of fiscal and monetary policy regimes.

IV. Concluding Remarks

The great peacetime monetary explosions of this century obviously did not develop out of the desire of (independent) monetary authorities to counter recession and unemployment. Rather, I believe most were direct consequences of [illegible] redistributive agendas that put the party (or ruling coalition) of government in power. Some parties (coalitions) came to power on the basis of promises to redistribute income to (unskilled and semi-skilled) labor, for example, the labor governments in Central Europe after World War I. Some governments came to power on the basis of promises to aid the urban and rural poor, for example, the "reform" governments in Latin America in the last three decades. Redistribution of these orders of magnitude cannot be financed without taxing the economic base and alienating earned income recipients. Money supply explosions reflect attempts to circumvent the electoral consequences of that alienation.

This view could give birth to the new generation of PBC models anticipated by Schneider and Frey in this volume. For a given monetary regime, money supply growth might oscillate between several equilibria, one reaffirming a sound-money commitment and building credibility, the others reflecting monetary policy responses to the adverse lagged electoral consequences of electorally-motivated, redistributive (fiscal and financial regulatory) policy. This constellation of pre- and post-election monetary policy switches clearly are consistent with the type of business cycle envisioned by Lewin in this collection. Depending on how the adverse consequences of fiscal and regulatory policy are distributed over time, the ensuing monetary surprises could produce the PBC correlation reported by Haynes and Stone in this volume. The thought-provoking reforms discussed by Mayer, White, and Willett in this volume have a far better chance of reaching fruition if the political bases of moentary surprises discussed here ~~are~~ in the papers by Lewin, Mitchell and Willett and Banaian in this volume are better understood.

Footnotes

[*] I should like to thank Thomas Willett and Edward Tower for their suggestions on this paper. Responsibility for error is entirely my own.

[1] Congress could also impose these costs. As explained below, it does not, because of the relatively higher costs of and lower benefits from monitoring and influencing monetary policy.

[2] One way it does this is by admitting representatives of the larger banks and bank holding companies to its councils, advisory groups, and directorates, even if, to the consternation of Congress, it violates the law. Thomas Havrilesky, "The Effect of the Federal Reserve Reform Act on the Economic Affiliations of Directors of Federal Reserve Banks," Social Science Quarterly (June, 1986).

[3] Thomas Havrilesky, "Monetary Policy Singaling from the Administration to the Federal Reserve," Journal of Money, Credit and Banking (February, 1988).

[4] For further refinement of the preliminary results reported below, see Thomas Havrilesky and Robert Schweitzer, "A Theory of FOMC Dissent Voting With Evidence from the Time Series," in Thomas Mayer (ed.), Political Economy of American Monetary Policy (Cambridge University Press, 1989).

[5] See Robert Barro and David Gordon, "Rules, Discretion and Reputation in a Positive Model of Monetary Policy," Journal of Monetary Economics (July,

1983).

[6] See, for example, Matthew B. Canzoneri, "Monetary Policy Games and the Basic Role of Private Information," American Economic Review 75 (1985): 1056-1070.

[7] Alex Cukierman, "Central Bank Behavior and Credibility: Some Recent Theoretical Developments," Review, Federal Reserve Bank of St. Louis (May, 1986).

[8] I am troubled by the notion that leftist governments find it consistently in their self interest to be more sensitive to unemployment than conservative ones. The premise, as I understand it, is that upper income groups weather recession with less relative deterioration in their wealth than lower income groups. Despite survey evidence that lower-income individuals are more concerned about unemployment than upper-income ones, this premise seems a bit tenuous. An alternative explanation is offered later in this paper.

[9] Thomas Havrilesky, "Monetary Modeling in a World of Financial Innovation," in The Payments Revolution: Emerging Public Policy Issues, Elinor Solomon (editor), (Nijhoff-Kluwer, 1987).

[10] George Stigler, "A Theory of Regulation," Bell Journal of Economics and Management Science 3 (1971), and Sam Peltzman, "Toward a More General Theory of Regulation," Journal of Law and Economics 19 (1976): 211-240.

[11] Thomas Havrilesky, Teresa Carroll and Michael Drozd, "Troubled Banks, Solid Banks, and Taxpayers: A Public Choice ~~[illegible]c~~ Theory of Banking Regulation," Duke

University *Working Paper* 1988.

[12] Inefficient aggregate economic outcomes depend on the condition that the size and long-run effects of redistributive policies are not fully foreseen by voters when they are proposed. This condition will hold if voters are myopic or if they incorrectly assume that only economic rents will be taxed.

[13] The interface between a public choice theory of financial regulatory policy and monetary policy surprises, closely resembles the connection between fiscal and monetary policy discussed below. For example, in the 1960s and 1970s, electorally-motivated financial regulatory policy, redistributed income to home owners and the housing industry. During periodic credit crunches, the vote-reducing costs of this policy required periodic attempts at monetary surprise.

[14] Thomas Havrilesky, "A Partisanship Theory of Fiscal and Monetary Policy Regimes," *Journal of Money, Credit and Banking* (August, 1987).

[15] This explains the persistence of the myth of low unemployment or real interest rate goals for the monetary authority, for example, in the recent overlapping generations literature which uses games between the Federal Reserve and market participants to explain monetary surprises, e.g., Canzoneri, *op. cit.* The present paper suggests that the Federal Reserve has no such goals independently of signals from the Administration which seeks relief from the adverse electoral effects of its own fiscal and financial regulatory policies — relief that may be found through monetary surprises.

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MONETARY POLICY SIGNALING FROM THE ADMINISTRATION TO THE FEDERAL RESERVE +

Thomas Havrilesky*

Introduction

A sizable literature in monetary policy contends that Congress and the President have formidable incentives to influence Federal Reserve decisions and that the Fed, in turn, has incentives to yield to this influence. However, while anecdotal musings abound, hard supporting or falsifying evidence has been lacking.

This paper develops an index of monetary policy Signals from the Administration to the Federal Reserve (SAFER). The index is a simple weekly sum of every article that appeared in the Wall Street Journal from September 1, 1979 to December 31, 1984 in which Administration officials express a desire for easier (+1) or tighter (-1) monetary policy. In ordinary least squares regressions cumulative values of the SAFER index over a three week period have a significant effect on the narrow money supply at the end of the third week; a similarly constructed index of signals from Congress to the Federal Reserve has no significant money supply impact. After classifying the signals by sources within the Administration (Oval Office, CEA, Treasury and unidentified sources), it is shown that responses to signals from the Treasury Department and from unidentified sources have a statistically significant

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effect on the money supply. In related regressions, the narrow money supply is also shown to be sensitive to a measure of their expected vote-producing effect, Presidential popularity polls. In an estimated reaction function, cumulative monthly values of the SAFER index respond to variables which measure the state of the economy; in other reaction functions, monthly money growth does not respond to the same state-of-the-economy measures but does respond to signals from the Administration. Further evidence suggests that the SAFER index is Granger-causal with respect to the money supply.

The Administration's Influence

A consensus is emerging in the monetary policy literature which rejects as mythic the belief that the Federal Reserve is an independent, politically neutral institution. Instead, the consensus is that, while it gives the Fed leeway, the Administration can obtain the monetary policy actions that it desires, e.g., Auerbach (1985), Beck (1986), Friedman (1982), Brunner (1981), Poole (1985), Wooley (1985), Lombra and Moran (1980) and Weintraub (1978). Support for this conjecture has arisen from several areas of monetary policy research.

The first area is the theory of the political business cycle (PBC), e.g., Tufte (1978), McCrae (1977), Nordhaus (1975) and Hibbs (1980). Although falsified in its narrow form, e.g., Abrams et al., (1983), Golden and Poterba (1980), Laney and Willett (1983), Luckett and Potts (1980) and Wooley (1984), PBC theory has provided a powerful impetus to the development of broader models that link monetary policy to fiscal policy and interest rate stability, e.g., Laney and Willett (1983), and to the production of expected votes through income redistribution and monetary surprises, e.g., Havrilesky (1987). There is empirical support for these broader models. The PBC view tacitly assumes that the vote-producing benefits to the Administration from periodic manipulation of the macroeconomy are formidable and that the implicit costs of influencing Fed officials are quite low. Costs are low because there are frequent, close contacts between Administration officials, who understand the technical aspects of monetary policy, and Federal Reserve leaders.

A second area of support for the belief that the Administration fundamentally can control monetary policy arises from reaction function studies which disclose significant shifts in monetary policy associated with changes in Administrations, e.g., Abrams et al. (1980), Beck (1984), Friedlaender (1973), Froyen (1974), and Havrilesky, Sapp and Schweitzer (1975), and changes in the political party of the Presidency, e.g., Havrilesky (1987).

A third area of support emanates from recent work which suggests that even when the Central Bank disagrees with the Administration it must eventually yield because it can impose few costs on the Administration. Thus, Federal Reserve "independence" merely imparts a slippage (in the form of a lag) to the Administration's monetary policy, e.g., Frey and Schneider (1981).

This view is generally consistent with a fourth strand in the monetary policy literature – certain models of the Federal Reserve as a bureaucracy. Because the Federal Reserve was formed as a quasi-public organization it has been able to develop a supportive constituency in the financial services industry, sometimes through the Federal Advisory Council, sometimes through the directorates of Federal Reserve Banks, Havrilesky (1986), but often through less formal linkages. Therefore, when the Federal Reserve leadership disagrees with the Administration over monetary policy, it may be allowed enough leeway to create slippages such as the aforementioned monetary policy lag or on occasion even to defy the President; for example, the Fed once raised the discount rate despite Lyndon Johnson's vehement opposition. Nevertheless, unless the Administration is confused by internal dissention, weakened by crises, and/or in a lame duck position Federal Reserve officials cannot afford to persist in such disagreements. To do so would jeopardize the System's budgetary autonomy and supervisory authority. Of course, in exchange for these privileges the Federal Reserve must serve alternately as the Administration's whipping boy for macroeconomic misfortunes and as its sound money oracle, ceremoniously warning the Oval Office not to succumb to pressures for lower interest rates. Kane (1984) describes the former role of the Federal Reserve in its relationship to Congress. The latter role, especially apparent in the public pronouncements of Federal Reserve Chairmen in recent decades, helps the Federal Reserve legitimate its nonpartisan image and extend its influence. It also allows the Administration an excuse to avoid responding to perennial demands for easy money and enables the Fed to engage periodically in monetary surprises which manipulate the real economy. Of course, sound money posturing requires that the Fed back it up with investment in reputation-building intervals of steady money growth. These intervals are likely to occur when Administration pressures on monetary policy are insignificant, as in the 1985-1986 period.[1]

A fifth source for the belief that the Administration exerts close control over monetary policy is descriptions of Fed acquiescence to the Administration. Robert Weintraub (1978) and Robert Auerbach (1985) provide historical accountings of switches in monetary policy that coincided with the expressed desires of the Administration. Their overviews are corroborated by numerous first-hand accounts. For example, ex-Federal Reserve Chairman William McChesney Martin, who served as Fed boss longer than anyone else, openly admits to successful Presidential influence on Fed policymaking. In one case, ABC (1982), Martin tells how the Fed postponed a boost in the discount rate because of the urgings of President Lyndon Johnson prior to his gall bladder operation. As another example, Sanford Borins (1972) asked FOMC staff members whether the Committee would allow a faster rate of money supply growth in response to a hypothetical phone call from President Nixon and was told that ". . . the FOMC would go along." Moreover, former Federal Reserve Governor Sherman Maisel contends that the Nixon White House successfully pressured the Fed to produce a boom before the 1972 election, Maisel (1973). This story has been dramatically told by Sanford Rose (1972), corroborated in detail by Maxwell Newton (1985), but contested by others. As another example, John Wooley (1984) has produced a memo from former CEA chairman Gardner Ackley to President Johnson concerning the appropriate FOMC member to lobby in order to prevent tighter monetary policy. As yet another example, Maxwell Newton (1985) provides detailed opinions of prominent first hand observers regarding Paul Volcker's and Arthur Burns' proclivity for following Administration orders.

A rich accounting of Federal Reserve-White House interaction is found in the recent book by William Greider (1988). It brims with interviews of Fed officials and staffers, Administration leaders, and leading Congresspersons. One example of Federal Reserve catering to Oval Office desires is an internal memorandum to Arthur Burns suggesting that he not publicly criticize the Carter Administration (at a time when he was promoting monetary ease in order to curry sufficient favor to win reappointment), p. 346. Another example is the disclosure by Fed employees that FOMC members regularly discussed political pressures during lunch breaks in order to keep them off the record, p. 390, even though Federal Reserve officials are careful to appear nonpolitical in public utterances, pp. 214-215. Greider also reports in detail how Reagan Administration officials placed so much pressure on the Fed in 1981 and 1982, pp. 360-390, that it prompted Lawrence Kudlow of OMB to remark "it's almost like Volcker taking an opinion poll of what the Administration wanted,"p. 477. Conversely, Greider also presents evidence of the Fed's ability to resist White House influence when the Administration is weak and/or irresolute, as it appears to have been during the last desultory year of the embattled Carter Administration, pp. 119-122 and 214-217, as well as in mid-1984 when the Reagan camp was badly split on the desired direction for monetary policy, pp. 605-640.

The Influence of Congress

In contrast to the view that the Administration holds the policy reins, many researchers do not believe that Congress is effectively involved in directing monetary policy, e.g., Pierce (1978), Weintraub (1978), and Wooley (1985). While a reciprocity exists between Congress and the Fed similar to that between the executive branch and the Fed (the Fed serves as Congress's whipping boy and sound money oracle in exchange for assurance of continued Fed privileges), most analysts now argue that, while there is some Congressional influence, members of Congress, unlike the President, have little incentive to control monetary policy effectively and continually. The expected vote-producing benefits from an individual Congressperson's involvement in monetary policy are quite limited because monetary policy does not redistribute income as overtly as alternative, e.g., pork-barreling, activities, Wooley (1985). The costs of involvement to individual Congresspersons are high because monetary policy issues are often technical and direct communication with System officials is difficult, usually depending on infrequent oversight hearings, sporadic bills to modify Fed powers and dictate Fed targets and rare direct consultation with Fed leaders. Thus, even though Congress possesses the legal authority to control monetary policy, a power surpassed by no other legislative body in the world, it lacks the incentive to do so. Consequently, Administration influence has the dominant influence in this area. For example, William Greider reports that in 1981 and early 1982, when pressed for easier money by Congressional leaders Howard Baker and Jack Kemp and for tighter money by the Administration, the Fed went along with the latter, Greider 91988), pp. 426-445, 470-478.

The SAFER Index

Overt visible actions of the Administration to influence monetary policy are too sporadic to serve by themselves as the basis for an index of signaling from the Administration to the Federal Reserve. Presidential appointments and reappointments to the Board of Governors are important and consistent with the thesis advanced in this paper (Kane, 1987) but infrequent. Impending Presidential vetoes of bills that would extend or limit Federal Reserve powers are also noteworthy but, again, occur too infrequently.

In contrast the Administration has ample opportunity to direct monetary policy on a far less overt level. Meetings between Administration and Federal Reserve officials occur regularly and are a matter of public record. For example, the Chairman of the Board of Governors attends luncheons at the Treasury every Wednesday, and there are frequent exchanges between the senior staff of Economic Advisors and the Office of Management and the Budget.[2] In addition to these formal encounters, Washington veterans attest to a great deal of informal contact between Administration and Fed leaders at social and professional functions.

While there is undoubtedly a good deal of give-and-take in formal and informal exchanges, the consensus amongst researchers is that top Administration officials can have their way if need be. For example, in his regular meetings with the Council of Economic Advisers the Federal Reserve's Staff Director for Monetary Policy customarily grants the Council access to the Fed's Blue Book.

Of course, the exact content of these direct communications is seldom explicitly revealed because to do so would make the Fed appear partisan and thereby erode its legitimacy. Nevertheless, it is realistic to assume that the essence of the Administration's intentions regarding monetary policy are regularly captured in the financial press.

The index of signaling from the Administration to the Federal Reserve (SAFER) is premised on the notion that the financial press efficiently extracts, assembles, digests, and disseminates with little bias on average the content of exchanges between the Administration and the Federal Reserve. We assume that all monetary policy information from these exchanges that is of value to market participants will systematically appear in the financial press. Specifically, we assume that the policy content of communications from the Administration to the Federal Reserve is extracted (with a lag) by press personnel from subsequent speeches, news conferences, press releases, interviews, leaks, etc., and is reliably reported in the press.

While this assumption should seem intuitively reasonable, it is not directly testable because the raw data, the content of every speech, every press conference, etc., are unavailable. However, our belief that the press is reliable is supported by the behavior of the Chairman of the Board of Governors. At the start of every working day, Federal Reserve librarians were required to deliver for review to Chairman Volcker copies of all the morning's news items which mention the Federal Reserve.

For the period from September 1, 1979, to December 31, 1984, a search was conducted in the Wall Street Journal. While signaling took place prior to this period, Weintraub (1978) and Auerbach (1985), it was chosen because it conforms to the period of Fed emphasis on the monetary aggregates and of apparent Administration sensitivity to Fed policy, Greider (1988). Use of this period reduces the need to employ the Federal funds rate or marginal reserve measures. The 1985-86 period was not included because it was marked by a dearth of signaling.[3]

Articles were retrieved which mentioned the views of the Administration on monetary policy, whether they emanated from a particular department, a particular individual, or simply were said to come from "Administration sources." Not all pieces could be evaluated as to whether they came from speeches, releases, interviews, news leaks, etc. Each article was categorized as to whether it signaled a desire for monetary ease, monetary tightness, or no change. An article expressing an interest in monetary ease was counted as +1; an article expressing a desire for monetary tightness was counted -1; all other articles were counted as zero. The simple sum of pluses and minuses for each week constitutes the SAFER index. Other arithmetical forms were not tried. The index is, thus, viewed as an inobtrusive, epiphenomenal measure of communication that has bee occurring directly.

The construction of the index was a fairly labor-intensive undertaking. Five research assistants were each assigned a year and scanned microfiche copies of each Wall Street Journal in that year, using the Journal's "What's News" digest as a guide, and reading all columns and editorials. All articles that mentioned the Administration's views on monetary policy were copied. As a check, a sixth research assistant later independently made another pass through several months of the same microfiche copies in each year and also selected qualifying articles. The failure of any assistant to extract qualifying news items in the first pass was negligible.

Each assistant evaluated his or her set of articles according to the +1, -1, 0 weighting scheme. The author then independently read and evaluated each article. Except for one overzealous research assistant who imputed an excessive number of non-zero weights to news items based on hindsight knowledge of the economic environment of the time, the author disagreed with the initial researchers' selection of weights in fewer than one out of one hundred news items.

Signals and the Money Supply

The first use of the index was to estimate its influence over the weekly money supply initially announced by the Federal Reserve.[4] Because the well-known lag in controlling the narrow money stock probably exceeds the lag in the index's capturing the policy content of actual communications, simple sums of the SAFER index for one to four preceding weeks were used as explanatory variables in ordinary least squares regressions. In addition, various schemes which assigned more weight to the most recent week's signals were tried. The results were all quite similar but the measure that generated the best results was a simple three week sum (SAFER). (In a later section of this paper monthly data are employed in capturing the effect of the cumulative signaling index for a month on monthly money growth.) Even though there is considerable randomness in the weekly money series, much of its movement is autocorrelated and taken care of by the lagged dependent variable. Where M_t is the narrow money supply reported at the end of the third week, the result was:

$$M_t = 1.9617 + 0.9972\, M_{t-1} + 0.3339\, (\mathrm{SAFER3}) \qquad (1)$$
$$\quad (1.3237) \qquad (312.696) \qquad (3.0161)$$

$$\mathrm{DFE} = 274 \qquad \mathrm{DW} = 2.5531 \qquad \bar{R}^2 = .9975$$

where t-statistics are in parentheses. These results suggest a non-trivial impact of signaling on money growth. Because the estimated parameter in equation (1) is close to one, the M_t series is "close" to being nonstationary and the $\bar{R}^2$ and standard errors are misleading. Expressing the dependent variable as a first difference, the result was:

$$M_t - M_{t-1} = 0.6493 + 0.3040\, \mathrm{SAFER3} \qquad (1')$$
$$\quad (3.8432) \qquad (2.8825)$$
$$\mathrm{DFE} = 274 \qquad \mathrm{DW} = 2.55 \qquad \bar{R}^2 = .03$$

This result indicates that the marginal effect of one index signal urging monetary ease would have been to increase the change in the money stock by $304 million over what it would have been for the week. The low $\bar{R}^2$ indicates that little of the change in money is explained by SAFER. This is probably because in 194 of the 276 weeks of observations the index had a value of zero.

When the Federal funds rate was used as the dependent variable the result was:

$$i_t = 12.3329 - 0.8889\, \mathrm{SAFER3} \qquad (1'')$$
$$\quad (68.5167) \qquad (-7.8420)$$
$$\mathrm{DFE} = 272 \qquad \mathrm{DW} = 1.12 \qquad \bar{R}^2 = .18$$

This result indicates that one index signal urging monetary ease would decrease the Federal funds rate by .8889 of a percentage point over what it would have been for the week.

When a similar index of signals from Congress to the Federal Reserve (SCFER) was constructed and included in the preceding equation, the result was:

$$M_t = 1.5131 + 0.9983\,M_{t-1} + 0.3299\,(\text{SAFER3}) - 0.2611\,(\text{SCFER3}) \quad (2)$$

$$(0.9837) \qquad (295.554) \qquad (2.9799) \qquad (-1.0832)$$

$$\text{DFE} = 273 \qquad \text{DW} = 2.5615 \qquad \bar{R}^2 = .9975.$$

The t-statistics indicate that the coefficient for Administration signaling is significant at the .005 level while the coefficient for Congressional signaling is not significant. Expressing the dependent variable as a first difference yields:

$$M_t - M_{t-1} = \underset{(3.9977)}{0.7758} + \underset{(2.9742)}{0.3141}\,\text{SAFER3} - \underset{(-1.3189)}{0.2997}\,\text{SCFER3} \qquad (2')$$

$$\text{DFE} = 274 \qquad \text{DW} = 2.56 \qquad \bar{R}^2 = .04$$

Of course, this result cannot refute the possibility that Congress might direct the Federal Reserve without overt signaling because the Fed learns about Congressional desires in some other way, Lombra and Moran (1982). However, we can only speculate about the nature of such communications. The results do not falsify the emerging view in the monetary policy literature that the Administration actually directs but the Congress exerts no effective, regular influence on monetary policy.[5]

Separate tests were conducted for the Carter and Reagan administrations as subsets of the overall sample. The results were very similar to those reported in equations (1), (1'), (2) and (2'). This suggests that for the sample period Federal Reserve responses to Administration signaling did not change across the two Administrations.

Separate tests were also conducted to determine whether the money supply was more responsive to signals from the Treasury Department (SAFER3T), the Council of Economic Advisers (SAFER3E), the President (SAFER3P), and unidentified Administration sources (SAFER3U). The result was:

$$\begin{aligned} M_t = \underset{(1.2533)}{1.8156} + \underset{(319.52)}{0.9974}\, M_{t-1} + \underset{(2.1584)}{0.35326}\,(\text{SAFER3T}) \\ + \underset{(1.4281)}{0.4772}\,(\text{SAFER3E}) + \underset{(1.1372)}{0.3503}\,(\text{SAFER3P}) + \underset{(2.2636)}{0.9870}\,(\text{SAFER3U}) \qquad (3) \end{aligned}$$

$$\text{DFE} = 272 \qquad \text{DW} = 2.58 \qquad \bar{R}^2 = .9975.$$

The coefficient for signals from the President is insignificant; the coefficient for signals from the Council are marginally significant; the coefficients for responses to signals from the Treasury and from unidentified Administration sources are significant at the .025 level with the latter estimate being significantly larger than the other coefficients. My conjecture regarding these results is that signals from technical advisers and specialists in Treasury and elsewhere precede and therefore carry more weight than signals from the Oval Office (also see n. 2). The latter often may simply reaffirm the former. Expressing the dependent variable as a first difference gives:

$$M_t - M_{t-1} = \underset{(3.7140)}{0.6286} + \underset{(2.0331)}{0.3254}\,(\mathrm{SAFER3T}) + \underset{(1.3905)}{0.4638}\,(\mathrm{SAFER3E})$$

$$+ \underset{(1.0513)}{0.3216}\,(\mathrm{SAFER3P}) + \underset{(2.1946)}{0.9517}\,(\mathrm{SAFER3U}) \qquad (3')$$

$$\mathrm{DFE} = 273 \qquad \mathrm{DW} = 2.58 \qquad \bar{R}^2 = .04$$

One of the shortcomings of the preceding regressions is that the simple sum of signals may not capture the varying strength of individual signals and hence the "productivity" of potential Fed responses to them. Conjectural attempts to measure signal strength by weighting the importance of each news item by its size, position or by whether it was an editorial, a by-line, a regular feature, or an ordinary item did not improve the empirical results. Another conjecture was that the current overall level of Presidential popularity indicates the importance of the monetary authority's response to signals from the Administration; the lower the President's popularity, the stronger should be the measured Fed response to the index. To test this, the product of the SAFER3 index and the latest value of the Presidential popularity poll were used to explain week-ending values of the narrow money supply. The result was:

$$M_t = \underset{(1.2445)}{1.8099} + \underset{(318.553)}{0.9974}\,M_{t-1} + \underset{(3.310)}{0.0087}\,(\mathrm{SAFER3} \times \mathrm{POLLS}) \qquad (4)$$

$$\mathrm{DFE} = 274 \qquad \mathrm{DW} = 2.56 \qquad \bar{R}^2 = .9975$$

where POLLS is the percentage of those polled who disapprove of the job the President is doing. The test statistics are similar to those reported for equation (1). The error mean squared is slightly lower for this equation. Expressing the dependent variable as a first difference yields:

$$M_t - M_{t-1} = \underset{(3.7541)}{0.6326} + \underset{(3.2104)}{0.0062}\ (\text{SAFER3} \times \text{POLLS}) \qquad (4')$$

$$\text{DFE} = 275 \qquad \text{DW} = 2.56 \qquad \bar{R}^2 = .04$$

These results and the results using POLLS in the next section, while not conclusive, do not falsify the conjecture that the higher the disapproval rating received by the President the stronger the monetary policy response to signals from the Administration to the Federal Reserve. (When the sample was divided between the Carter and Reagan Administrations the resulting equations were very similar.)

Reaction Functions

The SAFER index was then employed as a dependent variable in a monetary policy reaction function. The standard linear reaction function may be derived under the assumption that the policymaker maximizes the expected value of a quadratic loss function containing forecasted values of state-of-the-economy variables which are linear functions of predetermined variables in the structure.[6] The use of forecasts, explained below, is superior to the use of actual values of state-of-the-economy variables because it reflects the widespread observation that the Administration seems to be most concerned about the contemporaneous state of the economy. Under this condition unemployment and inflation must enter as forecasted variables because actual values are available only after a one-month lag. In contrast, the interest rate can enter as an actual value because these data are available contemporaneously. The use of forecasted values also diminishes the reverse causality problem wherein the dependent variable could conceivably interact with realized values of the state-of-the-economy variables.

In the present study the reaction function is written as:

$$(\text{SAFER})_t = a_0 + a_1\hat{\dot{P}}_t + a_2\Delta\hat{U}_t + a\Delta i_t + E_t \qquad (5)$$

where the dependent variable is the monthly total of the signaling index, $\hat{\dot{P}}_t$ is the forecast for the rate of inflation for month t, $\Delta\hat{U}_t$ is the forecast for the change in the rate of unemployment between time t and time t-1, Δi_t is the actual change in the nominal interest rate between time t and time t-1, and E_t is a stochastic error term. Even though our hypothesis indicates monetary policy responses to Administration signals over shorter time intervals than a month, in our reaction functions we were forced to employ monthly time series because price level and unemployment data are only available on a monthly basis.

The unemployment rate enters as a first difference rather than a level because trends in the level and in the natural umemployment rate are not a focus of great concern and are not readily affected by monetary policy. Therefore, unlike changes in the rate, they should not produce a signal. The interest rate enters as a first difference rather than a level since over fairly long time periods such as the one employed in this study lobbying groups typically pressure the Administration because of interest rate changes rather than interest rate levels.

Reaction function studies, such as ours, which assume that the policymaker is responsive to measures of the contemporaneous state of the economy and which employ monthly data imply a short (one month) time horizon in which the policymaker forecasts unemployment and inflation. Extension to a framework of multiperiod forecasts is simple enough but imputes an unrealistic degree of foresight to the policymaker, in our case the Administration. In addition, multiperiod forecasts give rise to the problem of multicollinearity among forecast values in different future periods.[7]

Our forecasting setup is conceptually straightforward. Signals from the Administration to the Federal Reserve are made under conditions of imperfect information. Forecasts which condition policy actions are assumed to be made consistently. Our specification is autoregressive, consisting of two lagged values of the state variable. Forecasts generated in this way correspond to authoritative descriptions of the way some policymakers actually forecast, Pierce (1974) and Lombra and Torto (1976), and, in empirical work, typically do as well as forecasts employing a broader information set, Abrams, Froyen and Waud (1980) and (1983). By construction, the forecasts (instrumental variables) are orthogonal to the estimated residuals in equation (5) and the estimates will be consistent. A two-period lag specification was selected because the standard errors adjusted for degrees of freedom do not improve when additional lags are introduced. A separate regression was estimated for each month of the September 1979-December 1984 period using observations for the previous 24 months. The estimated coefficients for each month were then used to compute forecast values for each month. These were then employed in estimating the reaction function. The result was:

$$(SAFER)_t = \underset{(2.2656)}{1.2436} - \underset{(-2.4628)}{0.5842\,\Delta i_t} - \underset{(-1.3852)}{1.7380\,\Delta\hat{U}} - \underset{(-2.4053)}{16.2554\,\hat{\dot{P}}} \qquad (6)$$

$$DW = 1.684 \qquad DFE = 58 \qquad \bar{R}^2 = .21.$$

Forecasted inflation and actual interest rate changes exert estimated impacts on monetary policy signals which are significant at the .01 level, while forecasted changes in unemployment do not.[8] The negative sign on the interest rate coefficient presents somewhat of a problem. It may reflect the impact of contemporaneous changes in inflation on nominal rates and on signaling. In addition, this negative reaction may also arise if Administration officials are sensitive to changes in short-term *ex post real* interest rates. The latter tend to vary inversely with changes in short-term *nominal* interest rates. When forecasted changes in the interest rate are employed, the coefficient remains statistically significant (see n. 7). The lack of significance for the unemployment coefficient conforms to many previous reaction function studies which used monetary aggregates as dependent variables, e.g., Wood (1967), Christian (1968), Black (1985) and Havrilesky (1987).

Causality

The preceding results may appear vulnerable to the criticism that monetary policy reactions to state-of-the-economy variables may be correlated with Administration signals to the Fed because they are both responding to the same state-of-the-economy variables. To test for this the same state-of-the-economy variables in equation (6) were used in a reaction function with the narrow money supply's monthly growth rate as the dependent variable. The result was

$$\begin{array}{lllll} \dot{M}_t = 0.1036 & - \; 0.0076\,\Delta i & + \; 0.0300\,\Delta\hat{U}_t & - \; 0.3919\,\hat{\dot{P}}_t & \\ \quad (3.5325) & \quad (-0.6032) & \quad (0.5138) & \quad (-1.0874) & \qquad (7) \end{array}$$

$$DW = 2.33 \qquad DFE = 58 \qquad \bar{R}^2 = .04.$$

The estimates for the change-in-the-interest rate, the forecasted change-in-unemployment, and the forecasted inflation variables are not statistically significant.

The forecast of the percentage of those who disapprove of the job the President is doing ($\mathrm{P\hat{O}LLS}$) was added as an explanatory variable because of its plausible role in explaining the expected vote-producing potential of monetary policy, independently of SAFER, because the Federal Reserve might respond to the forecasted political climate without waiting for signals from the Administration (see n. 9). The result was:

$$\dot{M}_t = 0.0150 - 0.0096\,\Delta i_t + 0.0256\,\Delta\hat{U}_t - 0.3777\,\hat{\dot{P}} + 0.0021\,\mathrm{P\hat{O}LLS} \qquad (8)$$

$$(0.1897) \qquad (-0.7540) \qquad (0.4378) \qquad (-1.0516) \qquad (1.2026)$$

$$DFE = 57 \qquad DW = 2.31 \qquad \bar{R}^2 = .06$$

None of the estimates are statistically significant.

When the SAFER index was added as an explanatory variable, the result was

$$\dot{M}_t = \underset{(0.9379)}{0.0061} - \underset{(-0.1968)}{0.0026\,\Delta i_t} + \underset{(0.7888)}{0.0463\,\Delta\hat{U}_t} - \underset{(-0.5065)}{0.1876\,\hat{\dot{P}}_t}$$

$$+ \underset{(1.1428)}{0.0019\,\mathrm{P\hat{O}LLS}_t} + \underset{(1.7116)}{0.0118\,\mathrm{SAFER}_t} \qquad (9)$$

$$DW = 2.28 \qquad DFE = 56 \qquad \bar{R}^2 = .11.$$

Neither the state-of-the-economy nor the forecasted polls variables are statistically significant but the signaling index is significant at the .10 level. Given our attempt to include the key variables that have long been widely regarded as influencing money growth and the persistence of a significant influence of the SAFER variable and its additional explanatory power even with monthly data, it is difficult to deny its robustness.[9] At a minimum these results indicate that the Fed is not responding to the same state vector that prompts Administration signals. Moreover, they do not falsify our conjecture that the Federal Reserve is responding to signals from the Administration. Whether signaling is robust across a wide variety of reaction functions is, perhaps, an interesting subject for future research.

As indicated earlier, contemporaneous monthly data are not appropriate for capturing the link between money and signaling. Indeed, Chart I suggests a correspondence between monthly values of the signaling index and monthly money growth after a short lag. [INSERT CHART I ABOUT HERE.] Therefore, to further corroborate the predictive power of the signaling variable a test for Granger causality was performed using weekly data.[10] Two basic regressions were run with the current money supply as the dependent variable, one with the lagged values of the dependent variable as arguments, the second with the lagged values of the dependent variable and the lagged values of the signaling variable, SAFER3, as arguments. Distributed lags of 8, 16, 26 and 52 weeks were tried. In all cases the test statistic exceeded the F statistic at the .01 level. The results indicate that Administration signals to the Federal Reserve are Granger causal over the sample period. This further supports the conjecture that the Federal Reserve was responding to signals from the Administration, rather than both the Fed and the Administration responding to the same developments.

Concluding Comment

This paper develops an index of monetary policy signaling from the Administration to the Federal Reserve. The index is a simple weekly sum of the number of Wall Street Journal articles which indicate that the

Administration desires easier (+1) or tighter (-1) monetary policy. For the period from September 1, 1979, to December 31, 1984, the cumulative three week totals of the signaling index help to explain the narrow money supply at the end of the third week. In 1985 and 1986 there was a palpable dearth of this type of signaling. A similar index of signals from the Congress to the Federal Reserve has no effect on the weekly money supply. This corroborates the emerging belief in the monetary policy literature that the Administration and not Congress effectively directs monetary policy. When the index is disaggregated into signals from the Treasury, the Council of Economic Advisors, the President and unidentified sources, only signals from the Treasury and from unidentified sources have a statistically significant impact on weekly money. In related regressions, the narrow money supply is also shown to be sensitive to a measure of their expected vote-producing effect, Presidential popularity polls. In estimated reaction functions the signaling index was responsive in contemporaneous changes in interest rates and forecasted inflation. Tests suggest that the Federal Reserve is responding to Administration signals and their vote-producing capacity, as measured by Presidential popularity polls (rather than directly to the same measures of the state of the economy that motivate Administration signaling). Granger causality from the signals to the money supply is indicated.

Of course, the results do not purport to explain everything to which Administration signaling, monetary policy or both respond. The rather ingenuous case is made here that they react to the forecasted macroeconomic effects of exogenous supply or demand shocks. In addition to these conventional arguments, one would also want to consider the response of signaling and monetary policy to the effects of these macroeconomic perturbations on the de facto solvency of regulated depository institutions and on the distribution of credit (loanable funds) to certain sectors. A reasonable case can also be presented that Administration signaling and monetary policy respond to the expected vote-reducing macroeconomic effects of fiscal (income redistribution) policy, Havrilesky (1987). Regardless of their ultimate causes, the present paper indicates that changes in monetary policy no longer be modeled independently of political and economic forces bearing on Administrations.

Footnotes

*My gratitude goes to Nathaniel Beck, Richard Froyen, Milton Friedman, John Geweke, George Kaufman, Ray Lombra, Charles Plosser, Dudley Wallace and Roy Weintraub and two referees for this Journal for helpful comments and to Jon Blank, Ed Mitchell, Matt Bernstein, Tom Opdycke, Lisa Herskowitz, Tim Miller, and Steve Rosen for research assistance. I alone am responsible for error.

[1] The credibility problem is the focus of a growing body of literature that explains monetary surprises on the basis of a Kydland-Prescott game between the Federal Reserve and wage setters, Barro and Gordon (1983), with and without private shocks, Canzoneri (1985). Critics find such resolutions of the credibility/surprise problem too simple for these types of model to be taken seriously as explanations of frequently observed inflationary breakdowns, Taylor (1983).

The present paper would suggest a restructuring of the problem based on a signal-dependent Federal Reserve whose bureaucratic self-preservation depends on its investing in its own sound-money reputation. This is more likely to occur when signaling is weak or ambiguous. One might reasonably expect weak or ambiguous signaling to take place in times when the Administration itself is factured and/or irresolute on monetary policy matters, in non-election years, during periods when the economy is relatively healthy, and, finally, during periods when the FOMC can be trusted to carry out Administration desires without explicit directions. For example, signaling was not particularly prominent in 1985 and 1986 (see n. 3).

[2] Many observers believe that Treasury's role in these communications is the dominant one, particularly since Treasury's Undersecretary for Monetary Affairs for the past thirty-five years has been a person with considerable experience at the Federal Reserve. See, for example, Newton (1985). This conjecture is tested below.

[3] In the fifteen month period from January 1, 1985, to April 1, 1986, seven months had no signaling at all. For this period the standard deviation of the SAFER index was only .700 compared to 2.239 for the sample period. Beginning in May 1985 the financial press reported that the Reagan administration had adopted a "hands off" attitude toward monetary policy and required its more vociferous monetary specialists to conform to it. A combination of three explanations of this dearth of signaling seems tenable. First, Reagan's phalanx of new "supply side" appointees may have effected such a trustworthy unified force within the FOMC as to make overt signaling unnecessary. Second, three years of sustained economic recovery combined with low inflation may have reduced the White House's need to signal. Third, the Administration may have found that conflicts with the burgeoning Volcker Legend were becoming too costly, especially at times when the Administration itself was badly divided on monetary policy matters. Future research involving signaling should be sensitive to the conditions which inhibit it (see n. 1).

[4] There have been notable attempts to measure monetary policy actions with indexes of the ease and tightness of monthly Federal Open Market Committee (FOMC) directives, Brunner and Meltzer (1964) and Luckett and Potts (1980). (Similar indexes take into account dissenting FOMC votes on these directives, Puckett (1984) and Gildea (1985).) In an attempt to gauge the importance of

these formal FOMC statements, we regressed an index of monthly FOMC directives (where +1 measured a change toward ease, -1 measured a change toward tightness, and zero measured no change in the directive) against the SAFER index, as an explanatory variable. The estimated coefficient was not statistically significant, even after a one month lag. In other OLS regressions, this index of FOMC directives, entering as an explanatory variable, did not have a statistically significant positive impact on month-ending values of any of the monetary aggregates, even after a one month lag. Therefore, even though a monthly index of FOMC directives has been reported to respond to variables which measure the state of the economy, and even though these results are interesting because they reflect official Federal Reserve sentiment, Luckett and Potts (1980), our findings warrant skepticism regarding the importance of indexes of formal monthly FOMC directives in the actual transmission of monetary policy decisions to the monetary aggregates. As Brunner and Meltzer (1964) long ago pointed out, FOMC directives may simply serve to intermittently reaffirm the Chairman's ongoing administration of monetary policy (presumably with the advice and consent of the other FOMC members) during the intermeeting period. Certainly, the palpable dearth of dissent and widely reported power wielded by the Chairman in formulating the directives, Wooley (1985), supports this view. These findings seem to warrant further research on the meaning of FOMC directives and Committee votes which dissent from these directives, Havrilesky and Schweitzer (1989) and Gildea (1984).

[5] Many researchers favor the use of the monetary base over the narrow money supply as a measure of the stance of monetary policy. When the monetary base (B) is used the result is:

$$B_t = .43023 + 0.9993\,B_{t-1} + 85.4797\,SAFER3 - 72.1939\,SCFER3$$
$$(0.4699) \quad (190.8205) \quad (1.4213) \quad (-0.5007)$$
$$DFE = 245 \qquad DW = 2.411 \qquad \bar{R}^2 = .9941$$

The estimate of the SAFER3 coefficient is only significant at the .10 level. The superior performance of the money stock relative to the base is somewhat of a puzzle since their movements are positively correlated and the latter is more readily controllable by the Federal Reserve. However, their movements are not perfectly correlated, the Administration was concerned about the money supply (and not the base) over virtually the entire sample period, and the money supply (and not the base) was an effective target for monetary policy over much of the sample period.

In all cases use of seasonally adjusted versus non-seasonally adjusted data makes virtually no difference in the results reported in this paper. This eliminates the possibility that the three week sum, SAFER3, picks up serial dependence in the money stock introduced by the adjustment process.

[6] This procedure is outlined in many places, for example, Wood (1967) and Abrams _et_ _al_. (1983). Estimated reaction functions, such as those which follow, are subject to a number of criticisms which are well-known in the literature.

[7] To deal with this problem, we allow Administration signals to respond to forecasts for future months. These forecasts were generated in the same way as the current month forecasts. Using forecasts one month ahead, the result was:

$$(SAFER)_t = 1.3968 - 0.3755\,\Delta\hat{i}_{t+1} + 0.1663\,\Delta\hat{U}_{t+1} - 20.4182\,\hat{\dot{P}} \qquad (6')$$

$$(2.6943) \quad (-1.9943) \qquad (0.1699) \qquad (-3.2045)$$

$$DFE = 58 \qquad DW = 1.7117 \qquad \bar{R}^2 = .22$$

The change in the interest rate variable now properly enters as a forecast. In this equation, both the forecasted change in the interest rate and forecasted inflation coefficient remain negative and statistically significant. In equations employing forecasts two months ahead only the forecasted inflation variable has a statistically significant coefficient.

[8] When the lagged money supply growth rate, Presidential popularity polls, and lagged values of the dependent variable are included in this equation, their estimated coefficients are insignificant and the sign and significance of the other estimates do not change.

[9] When the product of forecasted polls and signaling is entered as an explanatory variable because, as discussed earlier, the importance of monetary responses to signals from the Administration depends on their expected vote-generating productivity, the result is:

$$\dot{M}_t = 0.08560 - 0.011\,\Delta i_t + 0.05574\,\Delta\hat{U}_t$$

$$(2.9648) \quad (0.0851) \quad (0.9753)$$

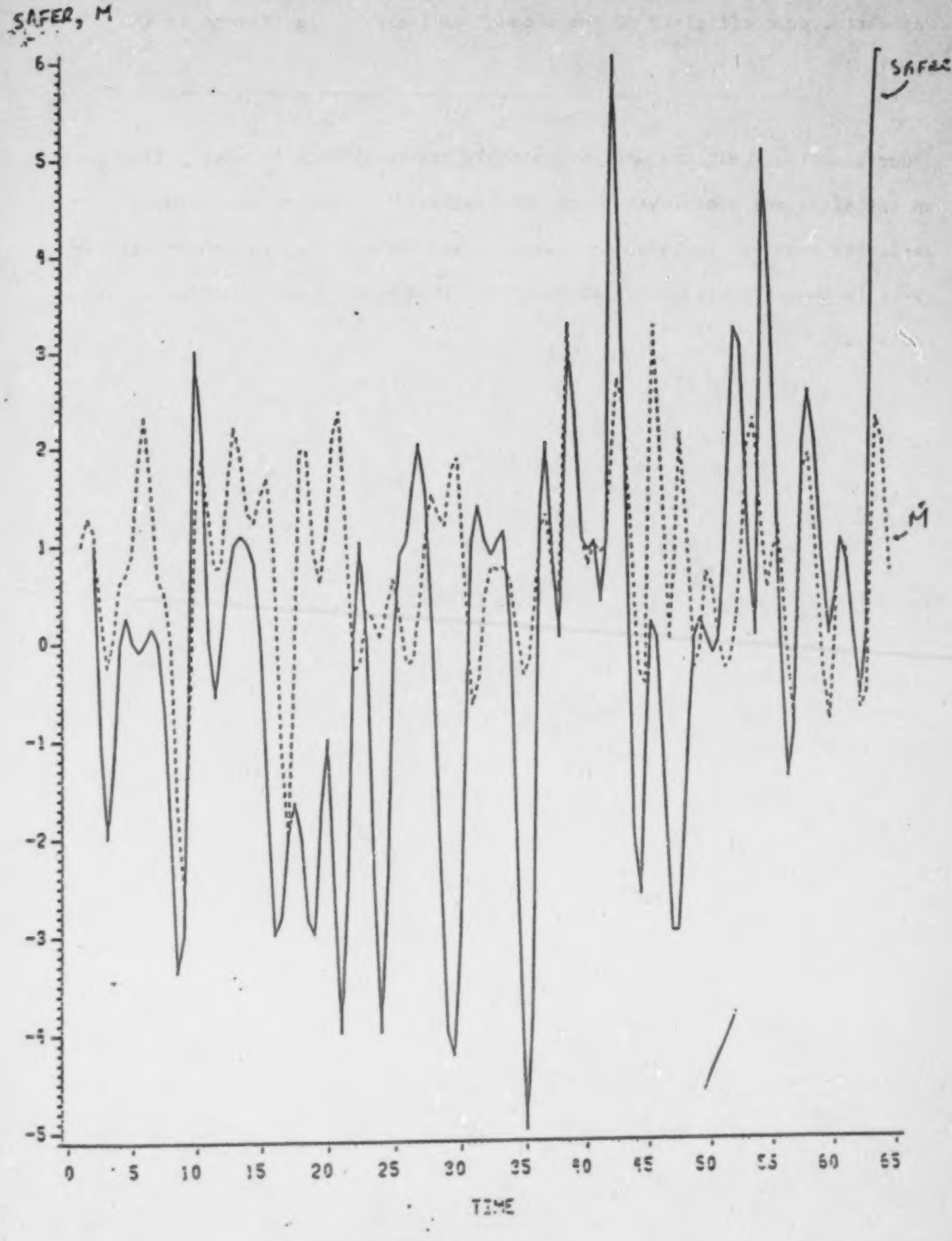
$$- 0.1728\,\hat{\dot{P}}_t + 0.0004\,(SAFER \times \widehat{POLLS}) \qquad (9')$$

$$(-0.4892) \quad (2.2918)$$

$$DFE = 56 \qquad DW = 2.24 \qquad \bar{R}^2 = .12.$$

The estimated coefficient of the product variable is significant at the .025 level.

[10] Our reaction functions employed monthly data only because weekly time series on inflation and unemployment are not available. State-of-the-economy variables were not included in Granger tests because they had no predictive power in the estimated reaction functions when money growth was the dependent variable.


SAFER, M
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TIME
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CHART I

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Senator SARBANES. Professor Hadjimichalakis, please proceed.

STATEMENT OF MICHAEL G. HADJIMICHALAKIS, ASSOCIATE PROFESSOR OF ECONOMICS, UNIVERSITY OF WASHINGTON, SEATTLE

Mr. HADJIMICHALAKIS. Mr. Chairman, members of the committee, I shall concentrate my comments on the appropriate conduct of monetary policy in 1988. It may be helpful to cast my comments in the context of the Federal Reserve's record during the last 5 years or so.

On the domestic front, the goal was, first, to move the economy out of the severe 1982 recession; and, second, more recently, to achieve a soft landing at the full-employment level of output, that is, the level of output associated with nonaccelerating inflation.

One way to characterize the Fed's conduct of monetary policy is to say that the Fed has been targeting velocity-indexed money growth, which is money growth augmented by velocity growth. Of course, the mirror image of velocity-indexed money growth is the growth in nominal GNP.

For example, in 1983, 1985, and 1986, the narrow monetary aggregate, M1, experienced double-digit growth. But velocity growth was negative in each of those years, so what appeared as excessive money growth was tempered by negative velocity growth and the economy did not overheat.

In 1987, the situation changed. The growth rates of all the monetary aggregates slowed down considerably. Of course, M1 was being ignored for misbehaving. During this year the conduct of monetary policy was complicated by international considerations as the Fed, from time to time, attempted to defend the dollar in foreign exchange markets. These considerations accounted partly for the slow growth of the monetary aggregates in this year.

Nevertheless, on the domestic front, U.S. monetary policy was successful in 1987. Nominal GNP growth and measures of other real-sector magnitudes achieved acceptable levels. Slow money growth did not result in economic slowdown because the negative velocity growth of the earlier years was reversed in 1987 and velocity-indexed money growth was on track.

Now, let us look at the prospects for 1988. In particular, we want to inquire whether the Fed should pursue a slow money growth policy as it did in 1987, or whether it should loosen up. The answer depends on whether we expect velocity growth to behave as it did in 1987.

Can we reasonably expect such a scenario? While it is possible, I think it is improbable. There are already forces in place that would reduce rather than increase velocity growth. All of these forces are due to uncertainty associated with the recent stock market crash. First, the market crash has generated uncertainty about rates of return on assets, about asset prices, and about wealth itself; and also about expected incomes and about expected expenditure needs. Such uncertainty usually steers investors toward more liquidity. In technical terms, money demand will rise, which is tantamount to saying that velocity will fall.

It is clear, then, that under this scenario the Fed should increase the provision of bank reserves if it hopes to prevent a slowdown in the economy.

So far I have been telling the story in terms of velocity-indexed money growth. This concept is a handy shorthand used by the Fed and by academics to explain monetary policy. Because it is a shorthand, however, it bypasses all the intricate linkages between money and economic activity. But we know that there is no magical connection between velocity-indexed money growth and nominal GNP growth. That connection is through the marketplace; that is, through the demand for goods and services and its components, consumption, investment, government expenditure, and net exports. In the absence of deliberate expansionary monetary policy, I expect the sum of the growth rates of these magnitudes to fall. Why?

The recent reduction in stock market prices has reduced the market valuation of existing U.S. plant and equipment—anywhere from one-fifth to one-sixth of its precrash value. If the replacement cost of plant and equipment is now the same as it was last October, as it is reasonable to assume, then the ratio of market valuation over replacement cost of plant and equipment—Professor Tobin's "q"—must have fallen by roughly that much. Such a substantial reduction in "q" portends a reduction in investment in plant and equipment in the United States. And a sizable reduction in investment in plant and equipment will have ominous consequences for the U.S. economy in the short run and even more so in the long run.

In the short run, unless this expected reduction in investment demand is matched by an equal increase in private consumption, government expenditure, or net exports, we shall experience a reduction in aggregate demand and, hence, an economic slowdown. This is precisely what we predicted a few minutes ago, using the concept of velocity-indexed money growth.

Now, several questions arise. First, in the absence of looser monetary policy, are there forces that will pick up the slack in aggregate demand? I do not expect an increase in private consumption, both because of the loss of wealth due to the stock market crash and because of the high level of existing debt burden of the household sector. In addition, we cannot count on increased government expenditure for reasons you know better than I do. This leaves net exports. Can we count on net exports to pick up the entire slack without the help of monetary policy? I very much doubt it.

The 40-percent decline in the value of the dollar over the last few years has finally begun to bear fruit, with a sizable reduction in the trade deficit in November 1987. But those gains can be counted on in the future only if the dollar remains at the current level or if it falls further.

In sum, higher domestic investment and higher net exports go hand in hand, and both depend on a looser monetary policy.

Policies to increase domestic investment are important not only for the short run but also for the long run. If we hope to pay off our foreign debt without reducing our standard of living in the future, we must have sufficient growth in real GNP. Hence, we need increased productivity through technological progress, which is normally embodied in new plant and equipment. This is another, even more important reason for a looser monetary policy in 1988.

Of course, conducting monetary policy under uncertainty comes with the territory. What, then, if the advocated policy is wrong? I will summarize some of the prepared statement and say that we face two risks: either the economy will overheat, or we will face the risk of recession.

I don't believe that there are forces in place that will cause a permanent increase in inflation in the next year. All indications are that we do not have that fear. However, the fear and the danger of economic slowdown is more real and far greater.

In summary, the Federal Reserve is faced with a dilemma. If it is inadvertently too generous in the provision of reserves, it runs the risk of increasing inflation and rekindling inflationary expectations. If it follows too frugal a monetary policy, it risks a slowdown or even a recession. Should the Fed, then, decide to err on the side of fighting inflation or on the side of fighting recession? At this point, we should recall a similar dilemma that the Fed faced in 1981. As 1981 unfolded, the monetary aggregates were given conflicting signals. The growth of M1 was below the Fed's target, while the growth of the broader aggregates was above target. The Fed at the time decided to ignore the contradictory signals emitted from M1 and to consider the signals emitted from the broader aggregates as too expansionary.

Thus, it embarked on a deliberate reduction in the growth of reserves. In other words, the Fed decided to err on the side of fighting existing double-digit inflation. And err it did. The severity of the recession in 1982 was unintended or, at least, not predicted by the Fed. But that policy had the favorable effect of reducing the rampant rate of inflation and, hence, of dampening inflationary expectations. In 1988, however, circumstances are different and do not warrant such a policy.

I conclude with a brief summary of the rest of my prepared statement which deals with some technical aspects of monetary policy. We have already noted that the Fed has abandoned M1 targeting because it has difficulties in either interpreting or controlling this aggregate. On the other hand, the Fed has been rather successful in controlling the broad aggregates, but only because deregulation has reduced the longrun interest sensitivity of the broader aggregates.

It turns out that targeting the broad aggregates in this new financial environment makes the economy—that is, GNP, employment, et cetera—more vulnerable to financial sector shocks and less vulnerable to real-sector shocks. Hence, in light of the recent stock market crash, which is a financial sector shock, the Fed should be encouraged to widen its target ranges for the broad aggregates in 1988.

Thank you.

Senator SARBANES. Thank you very much.

[The prepared statement of Mr. Hadjimichalakis follows:]

PREPARED STATEMENT OF MICHAEL G. HADJIMICHALAKIS

Mr. Chairman, Members of the Committee,

It is my pleasure to appear before you and present my views about the appropriate conduct of monetary policy in 1988. It may be helpful to put my comments in the context of the Federal Reserve's record during the last five years or so.

On the domestic front, the goal was, first, to move the economy out of the severe 1982 recession and, second, more recently, to achieve a soft landing at the full-employment level of output - the level associated with non-accelerating inflation.

One way to characterize the Fed's conduct of monetary policy is to say that the Fed has been targeting velocity-indexed money growth, which is money growth augmented by velocity growth. Of course, the mirror image of velocity-indexed money growth is the growth in nominal GNP.

For example, in 1983, 1985, and 1986, the narrow monetary aggregate, M1, experienced double-digit growth. But velocity growth was negative in each of those years, so what appeared as excessive money growth was tempered by negative velocity growth, and the economy did not overheat. That is, velocity-indexed money growth and its counterpart, nominal GNP growth, fell within (or near) the Fed's single-digit forecasting ranges for nominal GNP growth. Velocity growth was also negative for the broad monetary aggregates in each of those years.

In 1987 the situation changed. The growth rates of all the monetary aggregates slowed considerably. (Of course, M1 was being ignored for misbehaving: the Fed was paying more attention to the broader aggregates.) During this year the conduct of monetary policy was complicated by international considerations as the

Fed, from time to time, attempted to defend the dollar in foreign exchange markets. For example, in April and May the Fed tightened up on the provision of reserves to the banking system in order to stabilize the dollar. These considerations accounted partly for the slow growth of the monetary aggregates.

Nevertheless, on the domestic front, U.S. monetary policy was successful in 1987. Nominal GNP growth and measures of other real-sector magnitudes achieved acceptable levels. Slow money growth did not result in an economic slowdown. What was the reason? Velocity growth, of course. The negative velocity growth of the earlier years was reversed in 1987. And velocity-indexed money growth was on track.

Now, let us look at the propspects for 1988. In particular, we want to inquire whether the Fed should pursue a slow money-growth policy, as it did in 1987, or whether it should loosen up. The answer depends on whether we expect velocity growth to behave as it did in 1987. If it does, the recent stance of monetary policy is the correct one. In fact, some may argue it will kill two birds with one stone. On the domestic front, reasonable economic growth will continue. On the international front, the rather economical provision of reserves will smoothen the fall of the dollar by keeping interest rates higher than they would otherwise be.

Can we reasonably expect such a scenario? While it is possible, I think it is improbable. There are already forces in place that would reduce rather than increase velocity growth. All of these forces are due to uncertainty associated with the recent stock market crash. First, the market crash has generated uncertainty about rates of return on assets and, hence, about asset prices and wealth itself. Such uncertainty usually steers investors toward more liquidity. In technical terms, money demand will rise, which is tantamount to saying that velocity will fall. Second, the market crash has created uncertainty about both expected incomes and expected expenditure needs, which also traditionally increases money demand and, hence, reduces velocity. It is clear, then, that under this scenario the Fed should increase the provision of bank reserves if it hopes to prevent an economic slowdown.

So far, we have been telling our story in terms of velocity-indexed money growth. This concept is a handy shorthand used by the Fed and by academics to explain monetary policy. Because it is a shorthand, it bypasses all the intricate linkages between money and economic activity. But there is no magical connection between velocity-indexed money growth and nominal GNP growth. That connection is through the marketplace, that is, through the demand for goods and services and its components, consumption, investment, government expenditure, and net exports. In the absence of deliberate expansionary monetary policy, I expect the sum of the growth rates of these magnitudes to fall. Why? Much has been said about government expenditure and private consumption. I want to concentrate primarily on investment and secondarily on net exports. It is here that the effects of the recent stock market crash will be primarily felt - even if consumption demand remains unaffected.

The recent reduction in stock market prices has reduced the market valuation of existing U.S. plant and equipment - anywhere from one-fifth to one-sixth of its pre-crash value. If the replacement cost of plant and equipment is now the same as it was last October, as is reasonable to assume, then the ratio of market valuation over replacement cost of plant and equipment - Professor Tobin's "q" - must have fallen by roughly that much. Such a substantial reduction in "q" portends a reduction in investment in plant and equipment in the United States. The reason is that a reduction in "q" means that it is relatively cheaper to buy existing plant and equipment in the stock market than to build new one. And a sizable reduction in investment in plant and equipment will have ominous consequences for the U.S. economy in the short run and, even more so, in the long run.

In the short run, unless this expected reduction in investment demand is matched by an equal increase in private consumption, government expenditure, or net exports, we shall experience a reduction in aggregate demand and, hence, an economic slowdown. This is precisely what we predicted a few minutes ago, using the concept of velocity-indexed money growth. Now, several questions arise. First, in the absence of looser monetary policy, are there forces that will pick up the slack in aggregate demand? I do not expect an increase in private consumption, both because of the loss of wealth due to the stock market crash and because of the high level of the existing debt burden of the household sector. If anything, then, the slack will be greater. In addition, we cannot count on increased government expenditure for reasons you know better than I do. This leaves net exports. Can we count on net exports to pick up the entire slack, without the help of monetary policy? I very much doubt it.

The 40% decline in the value of the dollar over the last few years has finally begun to bear fruit, with a sizable reduction in the trade deficit in November 1987. Is that reason enough to tighten monetary policy? I don't think so. On the contrary, those gains can be counted on in the future only if the dollar remains at its current level or if it falls further.

In sum, higher domestic investment and higher net exports go hand in hand; and both depend on a looser monetary policy. Such a policy will lower interest rates and increase the market valuation of the existing stock of plant and equipment, thereby working to offset the effect of the stock market crash on investment; it will also make the dollar fall further, thereby increasing our net exports. The increase in net exports will, in turn, lead to an increase in investment in export-driven industries. In fact, increases in plant and equipment are taking place in these industries as a result of our falling trade deficit.

Policies to increase domestic investment are important not only for the short run but also for the long run. If we hope to pay off our foreign debt without reducing our standard of living in the future, we must have sufficient growth in real GNP. Hence, we need increased productivity through technological progress, which is normally embodied in new plant and equipment. This is another, even more important, reason for a looser monetary policy in 1988.

Of course, conducting monetary policy under uncertainty comes with the territory. What, then, if the advocated policy is wrong? That is, what are the consequences of the Fed's pursuit of a more expansionary monetary policy than intended? If that is the case, inflation will be higher than intended (the inflation rate that would inevitably come out of a correct policy, other things equal), both because of inadvertently increased domestic demand and because of the fall in the dollar. Although inflation will be higher than if the opposite policy is pursued, this does not mean that we shall have permanently increased inflation. For one, while an increase in inflation because of a decline in the dollar is inevitable, other things equal, it is also temporary. For another, there are no indications of widespread shortages in factor markets that foretell a pickup in factor costs and, hence, in prices, although the economy is currently operating at high levels of capacity utilization. On the other hand, the danger of economic slowdown is greater.

In summary, the Federal Reserve is faced with a dilemma. If it is inadvertently too generous in the provision of reserves, it runs the risk of increasing inflation and rekindling inflationary expectations. If it follows too frugal a monetary policy, it risks a slowdown or even a recession. Should the Fed, then, decide to err on the side of fighting inflation or on the side of fighting recession? At this point, we should recall a similar dilemma that the Fed faced in 1981. As 1981 unfolded, the monetary aggregates were giving conflicting signals. The growth of M1 was below the Fed's target, while the growth of the broader aggregates was above target. The Fed at the time decided to ignore the contractionary signals emitted from M1 and to consider the signals emitted from the broader aggregates as too expansionary. Thus, it embarked on a deliberate reduction in the growth of reserves. In other words, the Fed decided to err on the side of fighting the existing double-digit inflation. And err it did. The severity of the recession in 1982 was unintended or, at least, not predicted by the Fed. But that policy had the favorable effect of reducing the rampant rate of inflation and, hence, of dampening inflationary expectations. In 1988, however, circumstances are different and do not warrant such a policy.

I conclude with some comments on technical aspects of the conduct of monetary policy. We have already noted that the Fed has ceased targeting M1; it does not even announce a target range, although it does monitor movements in M1. The Fed abandoned M1 because the two criteria for targeting an aggregate - predictability of the link between the aggregate and economic activity, that is, predictability of velocity, and controllability of the aggregate - were not met in the climate of ongoing deposit-rate deregulation. We must note here that with the current rate-setting behavior of banks the interest-rate sensitivity of M1 has increased. For these reasons, the Fed kept modifying or ignoring its targets for M1, and finally abandoned them.

What about the broader aggregates? The Fed has been more successful in achieving targets for the broader monetary aggregates, M2 and M3. But hitting targets for the broader aggregates should not lull the Fed into thinking that it is necessarily pursuing the appropriate monetary policy. The chief reason the Fed is more successful in achieving its target ranges for the broader aggregates is the reduced long-run interest sensitivity of these aggregates as a result of deregulation. It is always difficult to move or displace a heavy object of little mobility from its initial position. But there is no guarantee that the object will always be found close to its desired position.

Suppose that one of the broad aggregates is off its target. To bring the aggregate back to target will require a substantial change in interest rates, which must be engineered by substantial changes in the provision of reserves to depository institutions - definitely greater changes under deregulation than before. Depending on the nature of the shock, such drastic movements in interest rates may or may not be more deleterious to the economy.

If the monetary aggregate is off its target because of a shock to the financial sector, the Fed's effort to bring the aggregate back to target will hit the economy a lot harder than before deregulation. In such a case, the greater change in interest rates will manifest itself as a greater change in GNP and employment. *The combination of the new financial environment and targeting the broad aggregates has made the economy more vulnerable to financial-sector shocks*.

On the other hand, if the displacement of the monetary aggregate from its desired position was brought about by a shock to the real sector of the economy, similar great changes in interest rates will be internalized in the financial sector and the effect on real-sector variables will be smaller. Thus, targeting the broad aggregates under the new financial environment makes the economy less vulnerable to real-sector shocks.

On the basis of this analysis, I think that the Fed's judgmental policy of interpreting growth in all the monetary aggregates in light of a spectrum of financial and real-sector variables is prudent. Such a policy frees the Fed from the straightjacket of rigid adherence to its target ranges for the monetary aggregates, and allows it to interpret the growth of all the aggregates in view of incoming information about the nature of shocks to the economy. Because of recent shocks emanating from the stock market, which are financial-sector shocks, the Fed should be encouraged to widen its target ranges for the broad monetary aggregates in 1988.

Senator **Sarbanes**. Gentlemen, thank you very much.

We have been joined by two of our colleagues, Congressman Hawkins and Congressman Wiley, the ranking minority member. I am going to defer to my colleagues. I think we will probably take about 10 minutes each and have a quick round.

I just want to put a couple of questions before I yield to Senator Proxmire.

Mr. Juster, I wanted to be sure of your table, table 1, of our prepared statement. These are 1983 figures and I understand that they are somewhat dated.

Mr. **Juster**. Correct.

Senator **Sarbanes**. But 80 percent of households own no stock; is that right?

Mr. **Juster**. That is correct.

Senator **Sarbanes**. And 10 percent own stock valued up to $5,000.

Mr. **Juster**. That is correct.

Senator **Sarbanes**. And then on and on from there.

Mr. **Juster**. And four-tenths of 1 percent have half a million dollars or more.

Senator **Sarbanes**. I am not quite sure I follow the second table. Could you explain that?

Mr. **Juster**. In the second table, the categories are not the size of common stock holdings, but rather net worth categories. Net worth, of course, is a combination of liquid assets, checking accounts, savings accounts, common stock, business equity, equity in real estate, equity in durable goods. So it is a much larger category than the category in the first panel, which was just common stock.

What I have done in panel B is to ask the question: Given the way net worth is distributed among American households in categories ranging from zero up to half a million or more, what is the average size of common stock holdings for households in those net worth categories?

What the table shows is that, to take the lowest number, if you have no net worth or negative net worth, you have a very small average amount, as one would expect, of common stock holdings—$26. If you have very large amounts of net worth, half a million or more—a category which includes a little less than 4 percent of the U.S. population—the average amount of common stock you hold is a little more than a quarter of a million dollars.

If you were to ask, how large is the average net worth in that category, in other words, what fraction of it is common stock—the table doesn't show that—the answer is something like about 15 percent.

Senator **Sarbanes**. Fifteen?

Mr. **Juster**. I believe the average net worth of households with half a million or more of net worth is of the order of $1.9 million. That is my recollection. I don't have that table with me. But a net worth of several million dollars is the average for households with half a million or more. Of that $1.9 million net worth, about a quarter of a million is common stock.

So the point of the second table is to demonstrate that 80 percent of the total common stock holdings are owned by households with half a million dollars or more of net worth in the aggregate.

Senator SARBANES. Let me be clear on that. In other words, for households that have net worth of between a quarter of a million and a half a million, the amount of that net worth, on the average, that is in stock is——

Mr. JUSTER. Very small. It is about $20,000. The average net worth in that category must be around $370,000 because they are all between $250,000 and $500,000. So the average can't be very far from $375,000. Less than about 5 percent is in the form of common stock.

Many households with large amounts of net worth—this is something I didn't realize until I looked at these data very carefully—don't have much common stock. The most common form of wealth for U.S. consumers is housing.

But equity in owned business is a much larger number than equity in common stockholdings in the U.S. economy among households. And I think I am right that equity in real estate besides your own home—investment real estate—was a bigger number than common stock.

The public probably has the impression that common stock and wealth are almost overlapping. But most wealth of American households is not common stock and never has been. Common stock is a remarkably small percentage of wealth, and the discussion that takes place in the financial press about wealth is often misleading on that count.

Senator SARBANES. It is obviously very heavily concentrated at very high wealth levels.

Mr. JUSTER. At very high wealth levels, and as panel C indicates, at very high income levels.

Senator SARBANES. Could you explain that table?

Mr. JUSTER. All I have done is to take the same data on common stock and relate stockownership to income.

What that table asks is: How much on the average is the common stock holding of households in various income categories? The biggest number there is the one indicating that if you have more than $192,000 of annual income in 1982, you have on the average $816,000 worth of direct holdings of common stock.

It turns out that about half of the total of all common stock holdings is owned by households with almost $200,000 of income. If you add together the last two income categories, that is, households with roughly over $100,000 of income, something like two-thirds of the common stock is held by households in that category. And those two sets of households, the last two, are only about 2 percent of the households in the United States—those with incomes of roughly over $100,000 in 1982.

So all of these tables were designed to provide different ways of making the same point; that common stock holdings, direct common stock holdings are very heavily concentrated among households who have either very high income or very high wealth or, typically, both. Often both.

Senator SARBANES. Thank you.

Mr. Wyss, I have one question on your chart in your prepared statement, the one marked "Federal Expenditures and Receipts" as a percent of GNP. Could you just elaborate on that a little bit?

Mr. **Wyss**. The upper line, at least the line at the upper end is the Federal expenditures taken on the national income accounts basis as a percentage of gross national product. This says that in 1960, Federal expenditure accounted for about 19 percent of the economy.

Today, or at least at the end of 1987, that percentage had risen to about 23 percent. On the other hand, tax receipts plus a few other odds and ends the Federal Government gets were also about 18 percent of the economy back in 1960. That percentage has remained much more constant. It is currently running about 19 percent.

The open shading marks periods when the Federal Government was running a deficit. The solid areas that you see are surpluses.

Senator **Sarbanes**. All right.

We can't see the lines. But in the solid area is the expenditure.

Mr. **Wyss**. The lower line is the expenditure.

Senator **Sarbanes**. And the receipts would have been the higher line; is that correct?

Mr. **Wyss**. That is correct.

Senator **Sarbanes**. But for this other period, take this last section over here, the difference represents the deficit; is that correct?

Mr. **Wyss**. That is corrrect.

Senator **Sarbanes**. Thank you.

Senator Proxmire.

Senator **Proxmire**. Mr. Juster, you made a strong case that the household debt has not really significantly increased in relationship to income and gross national product and so forth. It is up, but not alarmingly.

Mr. **Juster**. Yes.

Senator **Proxmire**. I would quarrel with that, but let me get into something else.

How about business debt? I notice that in 1955, which was a fairly healthy average year, the business debt was $2.85 for every dollar of earnings. Now it's not $2.85, it's not $3, it's not $4, it's not $5; it's $9.

When you have that as the average business debt, it seems to me that there must be tens of thousands of businesses in this country that have $15 and $20 of debt for every dollar of earnings, and therefore would be very vulnerable come a recession.

Mr. **Juster**. That is not an area that I know a great deal about. I have the same impression you do; that businesses in the United States are much more highly leveraged these days than they used to be, and that shows up in terms of virtually every ratio of sales or output or employment to some debt number.

Senator **Proxmire**. Let me just interrupt to say, doesn't that suggest that there would be more insolvencies and so forth, come a recession?

Mr. **Juster**. I think that is clear. About the only thing that I know about that subject is if you have a very large amount of debt and therefore a large amount of debt payments, it must mean that if income goes down, if profits decline, that the business will have troubles that it didn't used to have. That seems to me to be definitionally true because those debt payments are fixed income obligations.

Senator **Proxmire**. Let me shift to another aspect of this, the Federal debt that we all know is enormous, the deficit is enormous. Mr. Kaufman, who is highly respected here in Washington, also in New York and throughout the country, has said we can't afford another recession because of our huge Federal deficits and the fact that in the past we have had countercyclical fiscal policy which, of course, has deliberately increased the deficits in times of recession to try to balance and bring us out of it.

Isn't that also a matter of concern now? We are still running a very, very high deficit. It was reduced sharply in 1987, but likely to go up again in 1988. Come a recession, to what extent do you think we are handicapped in following a countercyclical fiscal policy?

Mr. **Juster**. My view of that is that I don't think we are very handicapped. The impact of recessions on deficits can be measured by saying the deficit will grow by something of the order of $30 to $40 billion for every point of unemployment. That is a well worked through macro number.

Thus if you had a severe recession and you went up 3 percentage points in the unemployment rate, which is quite a severe recession, you would grow the deficit by about $90 billion. I don't see that as a major problem. I am always willing to live with cyclical deficits, and everybody else that I know is willing to live with them. That is not the problem.

Senator **Proxmire**. There was 10.5 percent unemployment in 1982. This one could be worse than that. But if it is just 10.5 percent, that would still mean that the deficit would be likely to shoot up to $300 or $400 billion.

Mr. **Juster**. No. If the unemployment rate went up 4 percentage points, which is a very severe recession, the deficit would go up, on this calculation, $120 billion. It would go from $180 to $300 billion. That is not very pleasant, but the problem with the deficit as I see it is not the fact that it inhibits cyclical policy. There is a structural deficit problem that we have been unable to deal with and that we have to deal with. I think that is the root cause of much of the uneasiness that exists, both domestically and internationally, about whether the U.S. economy is really on track or is unable to control its consumption binge characteristics.

I think something has to be done about that, even if it has some cyclical consequences that I don't like. That would be my own view on the issue. I don't worry about the cyclical sensitivity. I recognize that the deficit numbers will get bigger. But, of course, they will get smaller when the recovery takes place.

So if something goes up temporarily and goes back down again the next year, I don't regard that as a major issue for policymakers. The structural one I think is.

Senator **Proxmire**. I am going to go to Mr. Havrilesky with another question.

Mr. Havrilesky, in an attachment to your prepared statement you say, "the administration often obtains the monetary policy that it wants." It seems to me that was not true of the Reagan administration in 1981 or 1982. At least they protested very strongly the Volcker policy of restraint to try to break the back of inflation that succeeded.

However, we now have a situation which it seems to me would make that especially true, because for the first time in 50 years we have a Board of Governors of the Federal Reserve, entirely appointed by one administration, and in that election year they are going to appoint the seventh member, the vacancy, this month and that will mean it is totally dominated by people appointed by the Reagan administration.

Doesn't that suggest your thesis that politics are more important than economic factors often in determining monetary policy?

Mr. **Havrilesky**. I disagree with your first statement and I agree with your second statement. I agree with the statement that there has been, figuratively speaking, a packing of the Board of Governors of the Federal Reserve by the current administration with people who are favorably inclined toward the shift toward easier money that it effected in late 1984 and throughout 1985.

However, prior to that time, prior to that realignment—what would appear to be an internal realignment of powers and reassessment of policy objectives in the Reagan administration I think probably called for by the then overvalued dollar, a product of the budget deficit and the impact of the overvalued dollar on exports and import-sensitive sectors—prior to that I still think that the administration had a strong influence on the Federal Reserve via another route.

I think there were very prominent spokespersons within the administration that effectively signaled the administration's desires to the Federal Reserve. The communication between prominent people in the administration and people in the Federal Reserve occurs on many different levels, informal and formal.

I have in a recent paper developed what I consider, what I believe to be the first hard evidence, the first hard evidence that such signaling takes place. And I discovered it in the most ingenuous way.

I went through the Wall Street Journal for 1 year and I took every article in which anyone in the administration had anything to say about monetary policy, and I rated those articles plus 1 for ease, minus 1 if the administration spokesperson desired tightness, and zero if they were "signaling" no change. I summed the value. I summed those values each week, and then I used that as an explanatory variable with either money, the monetary base, or the Federal funds interest rate as dependent variables.

Senator **Proxmire**. Could you make that available? That would be very helpful. Senator Sarbanes and I are members of the Banking Committee.

Mr. **Havrilesky**. A copy is attached to my prepared statement.

Senator **Proxmire**. Alan Greenspan is going to come before us and so will the new nominee, and we would be very interested in having them consider that factor.

Mr. **Havrilesky**. Thank you.

And in conclusion, I wanted to point out that "it moves." As the Cardinal said when he looked through Galileo's newfangled telescope—it was called a perspiculum then—"it moves." The money supply, interest rates, the monetary base danced to the tune of my index which I call SAFR, an acronym standing for signaling from the administration to the Federal Reserve. [Laughter.] And so it worked from October 1979 until 1984. Then in 1984, curiously enough, signaling went into—what I call signaling, the SAFR index, went into a pronounced decline. I associate it with the new "hands off" compromise effected between the administration and the Federal Reserve which was strongly associated with what you may choose to call "packing" of the Board of Governors of the Federal Reserve by new appointees.

Senator **Proxmire**. Mr. Wyss, you made the statement that I think makes a lot of sense to me that facts show that the steel industry, the paper industry, and so forth are operating near capacity, as a matter of fact, at a level which we always thought was inflationary. And you suggest that this means that there will be more investment in plant and equipment which will help the economy in 1988.

Recently, I think it was just yesterday, a story appeared in the financial section of one of the papers, perhaps the Wall Street Journal or the New York Times or the Washington Post, suggesting that because of the concern about debt that there was less planning for expansion of plant and equipment by business than might be expected in view of the high level that they are operating with respect to capacity.

Are you supportive of that or not?

Mr. **Wyss**. I have to admit I am a little more worried about debt than Professor Juster seems to be. There is a chart in my prepared statement that has the debt-to-income ratios for the major sectors. I think you can see there that the corporate debt to equity ratio has now peaked above 1 percent.

It has now gone above 1 percent for the first time in its history, which means that corporations now have more debt than they do equity in the corporation.

Senator **Sarbanes**. Which chart now are you talking about?

Mr. **Wyss**. The chart labeled "Debt-to-Income Ratios."

I think what we are finding at the corporate level is that there is some reluctance to borrow more heavily, especially at the current level of interest rates.

This is more important for long-term investment—new plants—than it is for equipment. I think what we are finding is that corporations are still very willing to put in short-lived equipment because they can depreciate it very quickly and it doesn't impact their long-term debt position so much, but they are showing quite a bit of reluctance to put in new plants, the greenfields plants, and I think in the long term that is very scary.

I would like to point out one caution, though, which is that we talked about the steel industry being at capacity. That is very true for the United States, but worldwide, steel still has a lot of excess capacity. I think another reason why they may be reluctant to invest heavily is that they are not sure that the dollar will stay at a competitive level.

Senator **Proxmire**. Thank you, sir. My time is up.

Thank you, Mr. Chairman.

Senator **Sarbanes**. Could I just ask a question about that chart? As I understand it, the corporate debt-equity ratio has doubled since 1960; is that correct?

Mr. **Wyss**. That is right. It has gone from 0.6 percent to about 1.2 percent. You find that it actually stabilized for a long period. It had been rising from World War II through about 1970. And then it seemed to stabilize at what we thought was sort of a natural level of around 0.8 to 0.85 percent.

Then, beginning in 1981, it started moving up again and continues moving upward. In fact, net issues of equity have been negative for the last 3 years.

Senator **Sarbanes**. Congressman Hawkins.

Representative **Hawkins**. Thank you, Mr. Chairman.

The discussion seems to have taken on a tone of how can we avoid the recession. Isn't the issue rightfully one of what can we do to avoid one or to reduce the damage in case we do.

In that line, may I ask—and, Mr. Wyss, you I think and Mr. Juster came near to suggesting some steps that can be taken to do so. Or let me state it more positively. What can we do to ensure that we do have a vigorous growing economy that will not be as vulnerable to a recession as now appears to be?

It seems to me that the bottom line is whether or not the current policies that we seem to be following, one of deep cuts in domestic spending, acceleration of defense spending without the necessary tax revenues to pay for it, and consequently the necessity to invoke more drastic domestic cuts, that seems to be the current situation.

Now, to what extent should those policies be modified or changed, and also Mr. Wyss, I think you mentioned something about slowing down spending, if I am correct.

In what way will that help create the type of an economy, the growth and the other factors in the economy that might avoid a recession?

Mr. **Wyss**. In the long run, I think there are two major imbalances in the economy that have to be eliminated. One is the enormous borrowing that is being done by the Federal Government, and the other one is the enormous borrowing that is being done from overseas by the economy as a whole, the Federal deficit and the trade deficit.

One of the reasons why we keep running into trouble with high interest rates and why we appear to have lost control over our own monetary policy of our own interest rates is, quite frankly, that we are too dependent upon this foreign inflow of capital. That really comes down to the point that this economy is borrowing more than it is saving. Somebody has to stop borrowing or we are going to continue to be dependent on the Japanese and the Germans for the capital that we need to run the economy.

I think it is encouraging that one of those deficits does seem to be improving. Actually both of them, I think, do seem to be improving in recent years. The trade deficit is showing signs that it has peaked. It hasn't really gotten better yet, but at least it has stopped getting worse.

The November number, I think, was very encouraging. We expect to see a $20 billion improvement in the trade deficit next year. That means we are going to be borrowing less from overseas and it is going to give the Federal Reserve a little more room to control the U.S. money supply and U.S. monetary policy.

The other deficit is the Federal deficit, because in the long run if the Federal Government is borrowing money, it has to be borrowing it from somewhere. If it is not borrowing it from the United States, because we are not saving enough, it has to borrow it from overseas. I would prefer that we were not borrowing so much period, because it hurts if you borrow it domestically because that is taking capital that should be going to investment. It hurts if you borrow it internationally because, No. 1, you have to pay interest on it; and, No. 2, there is always the risk that the foreigners will want their money back some day.

So I think progress on the deficit fronts is essential.

Representative HAWKINS. Yes. But in what way would the borrowing be reduced as long as we continue to spend it on the defense side of the budget? If the domestic spending cuts are going to be on the domestic side, they are not even touching what the borrowing is all about.

If the interest rates keep going up, which simply make the borrowing expensive, then it is pretty obvious that that will not solve the thing. What I am trying to find out is what in the current policies are designed to actually accomplish the goal of economic policy, I assume to produce a healthy economy that can afford to do the things we want to do?

Mr. WYSS. I think you come down to the heart of the problem. There is no pleasant way to reduce the Federal deficit. You either have to cut spending or you have to raise taxes. Or both.

Representative HAWKINS. We have been doing that since 1978.

Mr. WYSS. Well, you haven't.

Representative HAWKINS. We have been cutting domestic program spending consistently. Beginning with the Carter administration, we began it, and we have called it all sorts of exotic names. But it adds to the same thing, that we have been cutting back on domestic spending.

And you suggest that we cut back again. It seems to me that if in some 7 years, you haven't reduced the budget deficit by the process of cutting domestic spending, that you are not likely to do it this year or next year.

Mr. WYSS. Unfortunately, it is not domestic spending that counts. It is total spending.

And you are right.

Representative HAWKINS. I am assuming it is total spending, however, you are adding to spending on the defense side, so that is actually not being cut.

Mr. WYSS. And all the entitlements programs which are not being cut.

Representative HAWKINS. Are you suggesting that we cut back on that spending when we talk about reducing spending? Should we do that, or should we increase taxes to pay for it?

I am trying to see what, in effect, should we do now? Now, with these decisions to make—and they are tough ones, obviously—but should we change the policies, then? And, if so, what policies should we change? We don't seem to be solving the problem; we are getting deeper and deeper. That is pretty obvious.

Mr. WYSS. When you come right down to it, if you add up entitlements programs, including medical care, farm program, Social Security, defense, interest on the national debt, you have 85 percent of the budget. I don't think it is possible to cut that other 15 percent enough to balance the budget.

In fact, if you eliminated it completely, you wouldn't balance the budget. I think there has to be a policy choice. My personal policy preference would be both some cuts in the remaining 85 percent, as well as probably a bit of a tax increase.

Representative HAWKINS. That brings up a lot of political decisions that are not going to be made, unfortunately, so we are not going to get out of the problem.

Mr. WYSS. I think you are right.

Mr. JUSTER. May I comment on that, on the issue that you raised?

Representative HAWKINS. Mr. Juster, I would be delighted if you would.

Mr. JUSTER. I don't disagree, I think, with where my colleague Mr. Wyss is coming out. I am not sure whether I agree with you or not. I am not quite sure what your own preferences would be.

One way to understand the way outside economists—who are academics and don't have to make policy choices—think about the policy problem is to recall what happened shortly after October 19. There was a lot of panic in the financial markets. In the real markets, people were going around saying we really have a lot of problems of a sort that are major and not minor.

I would have thought, as an academic observer of the political scene, that that would have been an opportunity for leadership to come to the fore and say all right, we have been arguing for many years about what to cut and what not to cut, whether my program is to be cut or yours, what we do about taxes, and so forth. This appears to be a time we should put aside these arguments and make a serious attack upon what everyone recognizes as one of the major, if not the major, policy problems in the United States; that is, what to do about a deficit which is $180 billion—either rising or falling, depending on how you count it and what you think is going to happen and what you think was special about last year.

That didn't happen. There wasn't any evidence that I could find as an outsider of what I would call leadership which said "let's get our collective acts together." My own sense of what happens here is that the only place you are going to get leadership is out of the administration, and that didn't happen.

I don't think the Congress can lead on a politically sensitive divisive issue. The Congress is 435 in people the House and 100 in the Senate, and they all have their own points of view, and I just don't think it is possible that they can speak with a single voice. In the administration at least it is possible to speak with a single voice.

But the administration, as far as I am concerned, simply dropped the ball. There was no evidence, and you would have needed to have that, of an administration committed to the notion that it had to go and work with the Congress to solve a serious problem.

Instead, you got a patchwork. You got as much cuts as you would have had if Gramm-Rudman had been forced on the Congress, but you didn't get anything more. And you had about 10 billion dollars' worth of things which are sheer nonsense from the point of view of economic policy and content. They are asset sales or the equivalent, and don't solve anything.

The problem basically is—and if you don't have to worry about the political consequences, it is easy to say it—that we have to do something about the deficit for a variety of both domestic and foreign reasons. That has to involve a tax increase. It isn't true that most tax increases have serious detrimental incentive effects. There is not evidence of that at all, although people keep saying that. There are taxes which you could invent that would be a little less unpalatable.

Also, if you are going to be serious about it, you simply have to take a serious swipe at entitlements, including those for groups of people that are politically very strong, like senior citizens. My sense of it is that there is a very strong case to be made for the proposition that the rate of growth in Social Security payments has outstripped the rate of growth of wages over the last decade.

I don't think that is reasonable. I don't think senior citizens, if asked to pay—not bear the burden, but to pay a share of it—are really going to complain. But there are a lot of them, and people are very sensitive about anything that might affront the senior citizens lobby, and maybe they are right.

I do not think you can solve the policy problem without a cut in entitlements, a cut in defense, and an increase in taxes. No one is willing or able to put that package together. And my sense, or the main part of the reason is, nobody except a President that wants to do that has any prospect of putting it together, and even then it might not work.

I don't think that the Congress can be the initiators of that kind of a policy package, because they have just never had that role and they speak with too many divided voices among themselves. At least that is my outsider's sense of it.

Senator SARBANES. How much has the Social Security Trust Fund contributed to the deficit?

Mr. JUSTER. That is something I wanted to make sure that you all understood. My sense of it is that right now, the deficit would be worse, except for the fact the Social Security Trust Fund is running a surplus.

Senator SARBANES. That is absolutely correct. That is why I find it very difficult to understand why you continue to focus on Social Security when the fact of the matter is that currently the American people are prepared, within the self-contained Social Security, to pay a level of taxes ahead of the level of benefits, therefore creating a surplus in the trust fund which, at least for accounting purposes, is used as an offset against the deficit.

Mr. JUSTER. No. The deficit, as you suggest, is much worse than it actually looks, because it isn't just an accounting issue. What has to happen——

Senator SARBANES. If we were doing as well in every other area as we are doing with the trust fund, we wouldn't have any deficit at all, would we?

Mr. JUSTER. I think that is right. But let me just make this point, Senator. I am not sure that the trust fund is running as large a surplus as it needs to, given the demographics. That is, the way this thing is going to play out, there are going to be increasing numbers of claims on that fund.

Senator **Sarbanes**. What the trustees tell us, after the 1983 changes—and they have projected it forward 50 years—is that they have to keep reexamining it as we move along. On the basis of reexamination, they may change the tax rate or the amount of taxable income or alter the benefit levels.

But I am hard put to understand this constant return to the Social Security Trust Fund to address the overall deficit question when, in fact, the trust fund is making a major contribution to offsetting the deficit that is being run elsewhere.

Senator **Proxmire**. Let me just take 20 seconds to add to that. The trust fund is $38 billion in surplus this year. It will be $10 trillion by the year 2020 in reserve. And people say we have to cut the Social Security cost of living increases, which average $500 a month, with millions of people trying to live on that. It doesn't make a damn bit of sense to me. None.

Mr. **Juster**. Look, Senator. There are two issues here. One of them is whether it is good policy and whether it is equitable; whether, given the contributions people make, given the kind of problems that the country has to resolve somehow or other, whether cutting on the entitlements from Social Security, Medicare, welfare—call it what you will—whether that is an equitable thing to do. I think that is an arguable point and I think that is the grounds on which one should argue it.

The point that you are making is that there is something called the trust fund which is solvent, and you shouldn't therefore tamper with it because it is paying its way and we should make everything else pay its way. I don't think I agree with that.

What happens is that there are a set of borrowers and lenders and savers and dissavers, and what we have to do as a society is increase the savings rate in total, including Social Security as a piece of it, and including households as a piece of it, and including everything else as a piece of it. The policy problem is to get that savings rate, including government saving, high enough to afford to finance the capital equipment we need to make the country productive over the long term.

Whether it is financed technically out of the Social Security Trust Fund in part, or my savings, or your savings, or State and local government savings, doesn't seem to me to make as much difference as what the total amounts do.

So the issues that you raise are equity issues and I don't have simple answers to them. I would not exclude entitlement program considerations because there is a compartment called the trust fund which does make a contribution to the net savings rate.

Senator **Sarbanes**. Mr. Juster, let me make these two points to you. First of all, because of the committed funding, the American people have been carrying a tax which in any perspective is regressive, and they have been willing to assume the burden linked to these benefits.

If you start playing around with it, in my judgment you are going to undercut the rationale and support for carrying the tax. You may, in effect, create a bigger problem by taking that approach.

The other point is that I would hope you are not one of those people whose top income tax rate is going to get cut to 28 percent, and then, when they are asked what ought to be done about the deficit, their response is to propose going after the Social Security program.

Mr. JUSTER. Let me make my own position very clear on that. I said earlier I didn't think income tax cuts had anything like the incentive effect they were alleged to have.

From my perspective, I would just as soon see a significant tax increase that takes the form of a tax surcharge. However, my reading of the political winds is that enough people believe that there is an incentive effect and enough people like the lower rates so that it is off the board politically. My own preference, frankly, would be for most of the gap we now have to be filled by tax increases, and most of that to be income tax increases.

But it doesn't sound as if there is much support for that. Every time someone suggests that, they get cut off at the knees. So my assumption is that you can't do that, even though it might be economically the best thing to do. What you probably could get away with politically is some kind of consumption tax. I don't think there is a big difference on equity grounds frankly, between property taxes and sales taxes and income taxes. There are enough loopholes in the income taxes and deductions in the sales tax to where the progressivity is not very different.

Senator SARBANES. Congressman Wylie.

Representative WYLIE. Thank you very much, Mr. Chairman.

Those were interesting questions and interesting answers. This, may I say, is a most impressive panel and I am sorry I came in a little late, but I came from Columbus, Ohio, this morning and didn't hear all your testimony or your statements. And if you have answered my question, you can tell me right away.

It seems to me as if there is a lot of good news on the economic scene. The real gross national product rose at an annual rate of 4.3 percent. The third quarter employment rose to over 113 million. The unemployment rate has declined to an all-time low of 5.8 percent, the lowest since at least 1979. The inflation rate has moderated. Industrial production is up, according to the latest figures. Exports are expanding.

The sour note seems to be the huge Federal budget deficit. Mr. Wyss, you talked about another aspect of that which really bothers me, and that is too much dependence on foreign investment. In your judgment, has our U.S. national interest been jeopardized by certain international economic trends such as the increase in foreign ownership of U.S. public debt and private securities?

Mr. WYSS. I think it is much better if we don't have to owe money to foreigners. I think, given that we were running such a large deficit, it was better to borrow from foreigners than force an even worse domestic crunch in the United States. But we have to keep in mind that that money has to be paid back. It is money that is going to impact our balance of payments for years because it is going to be an outflow of interest, and eventually probably a principal as well that has to go out to these foreign investors.

Representative WYLIE. Would any of the rest of the panel like to comment on that? Is this a concern that we need address?

Mr. **Havrilesky**. Yes. I think the dependency on foreign savings has been excessive, especially in light of the policies to resist the natural course or sequence of events which would have followed from the budget deficit that were apparent 3 years ago, which was high real interest rates and a high value of the dollar against foreign currencies.

I think they tended to circumvent those things by driving down the nominal value of the dollar. As a result, flooding the world with dollars is not going to resolve the budget deficit. If anything, it is going to generate second and third order consequences that could be quite dire.

I think that tax cuts got us into this problem and I think tax increases are going to get us out of it. There's no two ways about it.

I am always amazed at allusions to the mysterious incentive effects of these tax cuts. Where are they? The boom of the 1980's, in my opinion, was fueled by the decline in imported oil prices, not by the tax cuts.

Representative **Wylie**. So you are concerned about the increase in foreign ownership. And your answer to getting us out of the difficulty—and I am going to go back to you, Mr. Wyss, on this—is to increase taxes?

Mr. **Havrilesky**. Not specifically the increase in foreign ownership, but the dependency on foreign saving. I think one way to reduce that dependency—the flow of foreign saving, not the stock of foreign ownership—one way to reduce the dependency on the flow of foreign saving, of course, is to allow interest rates to go back up. That would in turn, to some extent, generate more domestic saving, as one of the panelists pointed out earlier, and, of course, would reduce net domestic investment expenditures. Maybe that is not a risk you want to take with a possible recession.

But, in the absence of a tax increase, I think the only direction we can go in is toward higher interest rates to reduce the dependency on the flow of foreign saving.

Representative **Wylie**. Mr. Kubarych, you indicated you would like to answer.

Mr. **Kubarych**. I have a slightly different view. First of all, the facts are that for the beginning phase of our need for foreign savings, it was coming in voluntarily, eagerly, by foreign investors who thought they were getting good buys in buying our securities and buying our other assets, and they thought that the country offered great yield advantages to them.

I don't think that they were necessarily aware of what was happening or, in every instance, of what our economy was going to do, but they bought those securities without their arms being twisted.

In the last year or so, that has changed. The bulk of foreign inflows have been from the official sector. They have been the result of purposeful policies by government agencies and central banks abroad, largely reflecting coordinated foreign exchange market intervention.

That is not the same kind of inflow. That is an essentially political decision by those countries to participate in a stabilization effort toward the dollar. It has nothing to do with the yield advantages of the benefits of investing in the United States. And that type of inflow isn't sustainable indefinitely. It has happened before, and it never has been sustainable. And the markets knew it wouldn't be sustainable.

The breakdown of that agreement was a major factor unleashing the problems in October, because it was quite clear that there was rancor in the relationship.

So the fact is that if we have the right set of economic policies and the potential here, then we want everybody to feel confident investing in our assets, Americans and foreigners, because they think they are a good buy, because they think they give a yield advantage. And that is true whether they are buying stocks or bonds, companies, land, or real estate. And they will buy all of those things willingly if they think that there is an economic advantage to them, but they haven't been doing that on balance in the last year because confidence abroad in the U.S. economic outlook has deteriorated for a lot of reasons.

We want to get the savings rate up here. I think that is important. But you can't do that overnight. Anybody who thinks you can do that overnight is kidding himself.

Representative **Wylie**. Well, investment in assets by foreigners in the United States has increased over the last year—I just saw an article on that—to double-digit figures.

Mr. **Kubarych**. They are different classes of assets. As a matter of fact, foreign net purchases of U.S. equities in the stock market were very strong last year, something like $35 billion at an annual rate, from the numbers that we have seen.

It continued strong, even in October.

Representative **Wylie**. Now, is there a law of diminishing return on that, so that there is a figure beyond which we ought to be concerned.

Mr. **Kubarych**. No, I don't think that is a very big number relative to their initial holdings of our equity assets. There is a lot of potential for foreign investors, private foreign investors, companies and individuals to come into our markets. They are not by any means flooded with dollars of that sort.

Where they are flooded with dollars is in the kinds of money market instruments and other types of securities that are associated with official purchases of dollars in these intervention operations, and that will require some fundamental readjustments in their policies as well as ours. They have just as much to worry about in terms of getting their own policies in line as we do. Maybe more so.

I think that from the perspective of the United States, we benefit from voluntary foreign capital inflows. It makes our interest rates lower than they otherwise would have been. Therefore, our investment is going to be stronger and our productivity growth is going to be stronger. Plus, when they come in here and manage companies and own plant and equipment and businesses here, and they do it well, they have a positive demonstration effect on U.S. business generally because then U.S. business has to compete that much harder, and we all benefit from higher productivity.

So that part of the foreign participation is not to be feared. It is to be welcomed. The only part that you fear is the unsustainable part, not the part that is based on true economic values.

Representative **Wylie**. Do you agree with that, Mr. Wyss?

Mr. **Wyss**. I certainly would agree that the part that is based on true economic values and yields is better than the forced borrowing that we are doing now. But I still don't like borrowing money. I am old fashioned. It is like a household. It is not bad for the economy if I go out and borrow $30,000 and buy a new Cadillac. As long as the bank is willing to loan me the money and as long as I can reasonably pay it back, given my income stream, it is fine. But I don't go out and do it because I don't want to have that much debt hanging over my head.

I think that is true for the country as well. When we start borrowing, we have to pay it back. I don't think there is any reason why the United States needs to be that big an absorber of foreign capital. I don't think it makes sense, given our economic position in the world. I don't think it makes sense, given our economic position as a country.

Representative **Wylie**. I want to go in a little different direction here.

The Congressional Budget Office has said that the real gross national forecast soon to be issued will estimate real growth at about 1.8 percent in 1988, which is slightly lower than the administration estimate, as you know.

If our estimated real growth is only 1.8 percent, that would imply an increase in the Federal budget deficit because the estimates on which we just passed a summit and the budget reconciliation bill were a little higher.

Do you agree with that number, the 1.8 percent number, Mr. Wyss? And do you see a real growth level sufficient to continue the deficit reduction without something additional?

Mr. **Wyss**. Our own estimate for next year is 1.8 percent so I can't disagree with the CBO.

Representative **Wylie**. That is your estimate?

Mr. **Wyss**. They are right on our number, which obviously proves that they are great forecasters.

Representative **Wylie**. So you think more might be needed to reduce the Federal deficit?

Mr. **Wyss**. I think, given that kind of number, it does imply you are going to get an increased Federal deficit during the next fiscal year.

Senator **Sarbanes**. Is that your own forecast number as well, 1.8 percent?

Mr. **Wyss**. Yes.

Senator **Sarbanes**. Was that a revised number? Had you made an earlier forecast?

Mr. **Wyss**. Our number before that was, I think, 1.6 so it has been revised up slightly. We were at 1.8 before the CBO number came out.

Representative **Wylie**. None of you predicted a recession for the next year, did you? Nobody did that. OK.

Mr. **Hadjimichalakis**. Excuse me. May I disagree? I may not call it a recession, but I call it a slowdown. If the Federal Reserve does not pursue a more vigorous monetary policy, I do expect a slowdown.

Representative **Wylie**. I heard you mention the fact that you think there has been some management, as far as the Federal Reserve is concerned, or some intervention. It hasn't necessarily been all that bad, I guess.

But I want to get an answer to this question first. Then I will go to that one.

Mr. **Kubarych**. I think the economy had such a head of steam going into October that, in the absence of what happened, we would be looking at 3 or 3½ percent growth. I think that you shave about a percent off that, and I think 2 to 2¼ percent is basically what we are going to be looking at this year, and my only worry is, quite frankly, that a lot of business decisionmakers expecting worse, will take an excessive degree of optimism out of the situation, build up too many inventories, create too many price pressures, and then 1989 could be very tricky; 1989 is going to be a more difficult policy year than 1988, for a lot of reasons.

So I think something in the 2 to 2¼ percent range is the best likelihood, and I think the real danger is if people get too optimistic and start building too many inventories and pose a potential problem in 1989 where the inflation rate starts to rise.

Representative **Wylie**. Professor Havrilesky has said that we need a tax increase if we are going to keep the deficit down. Do you agree with that?

Mr. **Kubarych**. There are two kinds of deficit problems. There is the highly publicized debate over budget policy that influences the financial markets a lot. That is a question about political compromises and how people of different attitudes and philosophies come together to reach reasonable compromises, and whether that is done in a constructive way or a destructive way.

That says an awful lot more about the process by which these decisions are made, rather than the content. As far as the content, from a pure economic point of view, given the economic outlook, I don't personally believe that beyond last November's compromise the Congress and the administration have to do anything urgently right this second, in a major way, to deal with the budget deficit in 1988.

I think that is quite responsible to do relatively small things. I think that over a period of time, like the next 4 years, there should be a budget strategy to bring us down to something like a balanced budget, on average, in the subsequent administration. Speaking personally, I think that longer term budget policy will require tax increases. My own view would be to raise income taxes. It is there, people pay it, they really believe it, and frankly I don't think they would like a new tax.

Representative **Wylie**. I don't think they believe in raising income tax.

Mr. **Kubarych**. I think they could be encouraged to think along those lines. I think that putting on a brand new big tax like a consumption tax would be frightening to a lot of people if the case can be made that (*a*) U.S. Government spending is being held to prudent levels and (*b*) the Government is being well managed; that productivity increases in the way the Government's spending gets done are every bit as good as we are now seeing in the private sector.

There is quite a lot of good productivity growth. If the public has the perception that the Government is also becoming more efficient, which I suspect it is, that will give them more confidence about paying their taxes willingly. So I think that the long-term budget compromise will require tax increases and I think I would do it the simplest way.

The short-term budget outlook is that you don't want to do very much because the economy is going to be growing at a level that does not require budgetary restraint right now.

Representative **Hawkins**. Would you yield on that point?

Representative **Wylie**. Yes, of course.

Representative **Hawkins**. Are you suggesting that we not follow the Gramm-Rudman targets? You said that you did not think it was necessary that the administration or the Congress needed to do very much.

Mr. **Kubarych**. More than has already been agreed on. What you have agreed on you should followup on, but I don't think there is an urgent need to do more than what has been agreed on in the compromise.

Of course, if it isn't followed up on, if that compromise is not followed up on, that will be a lightening rod for the financial markets, clearly. But if it is followed up on responsibly, I don't think that anybody is looking for anything of a stunning, sweeping dimension over the next 9 or 11 months.

Next year, they are going to be looking for a long-term, 4-year budget compromise that gets the budget down to about balance by the end of the next administration.

Representative **Hawkins**. Yes, but anticipating that in order to reach a target, that further cuts may be required merely to reach that numerical target. Are you saying that we should not do it?

Mr. **Kubarych**. I don't have any strong feelings about the Gramm-Rudman approach. When it was first announced, it had a very powerful positive effect on financial market expectations because it looked like a major step and a consensus that many people didn't think could be reached.

Historical experience of Gramm-Rudman targets were also positive. However, I don't think that there is an awful lot of magic in that particular time horizon of budget cuts. Obviously, if you are going to get the budget down to about balance over a 4-year period, you have to start sometime. But there is enough uncertainty about the economy right now that I don't think that economists generally, in the private sector and academic life, are looking for a major restrictive fiscal policy at the moment.

That carries with it quite a lot of recessionary risk and I don't think we are willing to take those risks. But over the longer time horizon, it would be better to have a compromise that would be less numerically oriented, which is Gramm-Rudman—it is a numerical approach—and more structurally oriented, which would involve some tax increases.

Representative **Hawkins**. Thank you.

Senator **Sarbanes**. I just want to make this observation, given the reference to gridlock and the inability to come to grips with the problem.

Once the administration, following the stock market fall in October, was prepared to consider restraint in defense spending and additional revenues, instead of focusing exclusively on domestic programs in order to address the deficit question—in other words, once all the elements were put on the table, in roughly 3 short weeks, an overall understanding was reached between Congress and the administration on the general outlines. Within another 3 weeks, that general understanding was carried out in detail in legislation passed by the Congress.

I think there are some provisions that are soft, according to the observation, although not as much as one might have feared or expected at the time, and I think that was fairly well resisted.

The point I am making is that the gridlock or logjam was broken. I don't think we moved as far or as resolutely as one might have wanted, but nevertheless it was broken when the administration was prepared to move away from a position of absolute resistance and to consider either restraint in defense spending or additional revenues as an approach to reducing the deficit.

The final package embraced those elements along with restraint in domestic spending.

Professor Hadjimichalakis, I want to ask you one question. At the outset, you made a point about velocity growth. Of course, it is a very important point as you relate it to money growth. But what is your explanation for the negative velocity growth which all of a sudden became very positive?

First you are moving the money aggregates around and relating them to velocity growth. First you had negative velocity growth, and then the next year it becomes very positive and completely offset the change made in the money growth.

Maybe I missed it, but I am not sure it is spelled out in your prepared statement.

Mr. HADJIMICHALAKIS. Preceding 1987, I note in my prepared statement that there was a substantial reduction in velocity. In fact, I have some numbers here. For 1983 it was minus 2.7 percent, 1985, minus 6.1 percent, 1986, minus 10 percent. To put them in perspective, in the past the typical one we expected over the long, long run, as shown by such studies as Professor Friedman's and Schwartz', was about 3 percent, that is, plus 3 percent. Here we are talking about minus 10 percent, minus 6 percent, minus 2.7 percent. Of course, I do not expect negative numbers to be permanent. And, indeed, they were not because we switched this year to positive ones.

Senator SARBANES. What was it in 1987?

Mr. HADJIMICHALAKIS. Let me look.

Senator SARBANES. Or 1986. I don't know which year. Which year was it you used for the switch?

Mr. HADJIMICHALAKIS. In 1987 it was close to plus 4 percent.

Senator SARBANES. All right. So, that is more or less the historical figure?

Mr. HADJIMICHALAKIS. Yes.

Senator SARBANES. What is the explanation then for the minus figures?

Mr. HADJIMICHALAKIS. As I said in my prepared statement, a reduction in velocity means an increase in money demand. Anything that persuades investors to move from other assets into monetary assets like NOW accounts, or even regular checking accounts, is going to increase money demand—it's going to decrease velocity.

And that is what happened in those earlier years. There was a decrease in market interest rates on Treasury notes and in all kinds of market rates because of disinflation. On the other hand, in the short run, the rates on deposits were not moving quickly because of the rate-setting behavior of banks. Thus, the opportunity cost, the difference between the market rates and the deposit rates, was decreasing. Therefore, there was an increase in money demand and a decrease in velocity.

When monetary assets become relatively more attractive to the public as compared to Treasury bills or other assets, they buy more of them. The rate-setting behavior of banks and the speed with which they changed deposit rates helped to make monetary assets more attractive. For one reason or another, banks did not adjust their deposit rates quickly. Therefore, asset holders moved into money, and there was a fall in velocity.

I probably have confused you—even more than I may have intended. Let me sum up. With falling interest rates, there was a shift of investors away from all other instruments and into monetary instruments; in particular, checking accounts, NOW accounts, and other similar accounts. That's why we have observed all the monetary aggregates, M1, M2, M3, exhibiting decreased velocity. There was an increase in their demand. The opposite happened last year—1987. On the other hand, in my prepared statement I predict that another factor is at work to increase money demand and decrease velocity in 1988. That factor is increased uncertainty due to the stock market crash.

Senator **Proxmire**. Mr. Kubarych, it appears to me that what we should be looking at as Members of Congress is what we can do to adopt policies that will make it possible or more attractive for business to rely more on equity and less on debt. There is one very transparent, obvious thing we theoretically can do, but from a practical standpoint I think we can forget it; and that is, we could abolish the corporation income tax on the grounds that, as business has said so often, it's a double tax on dividends. You tax the profits and then you tax the profits again when they're paid out as dividends.

Frankly, I favored that, although it would tend to be a regressive action because it's a regressive tax, in my view. But as I say, you can forget it politically.

Now, there are two things, it seems to me, that we can do. One is to recognize that the volatility in the stock market tends to discourage firms from raising money through equity. And the Brady report strikes at that. And the Katzenbach report, which was only 3 weeks before that, strikes at it in a very, very similar way.

I have talked to people in the House—John Dingell and to Ed Markey, both of whom, of course, are important in this area—and they favor it. Yet, the press has indicated it doesn't have much chance.

What do you think of that kind of an approach as recommended by Senator Brady and Mr. Katzenbach?

Mr. **Kubarych**. And by that you are specifically talking about the circuit breaker?

Senator **Proxmire**. Well, the circuit breaker is the part that is probably the least likely to fly. But having a common regulator, maybe the Federal Reserve. They don't like it. Maybe the SEC. So that you could have somewhat more similar margin requirements, settlements arrangements, and information requirements on both sides, something of that kind so that you could settle it down a little bit and hope that you'd get less volatility.

Mr. **Kubarych**. Well, you know, you're going to have my chairman on February 5 as part of your hearings on the whole evolution of that period, and I think it's unfair of me to really go into any detail.

Senator **Proxmire**. Not unfair. It's probably unwise.

Mr. **Kubarych**. Unwise. [Laughter.] Well, I told him—when I asked him about coming down here today, he said, you know, do it, it's a very good thing to do. Stick to economics and don't forget I will second-guess everything you say.

I think he believes, though, and I think he's said several times, that there are some intelligent recommendations that deserve a lot of attention.

Senator **Proxmire**. Well, the Katzenbach report was commissioned by the New York Stock Exchange.

Mr. **Kubarych**. Yes, but quite frankly, we did not—and I can tell you this completely honestly—he worked independently, he had no more contact with us than with all of the other people that he got information from. It's his own point of view, absolutely untarnished by that. And that is the honest truth. So, he did reach those conclusions himself.

Senator **Proxmire**. The other action we can take—the Senate Banking Committee reported this out 14-6—and that's a new tender offer approach that would discourage the enormous rate of corporate takeovers, hostile takeovers particularly. That is legislation that I think would tend to reduce the enormous increase of debt because one of the effects, of course, of the raids, whether they were successful or not, is that they plunge corporations very heavily into debt. I could cite a whole list of corporations that have gone way deeply into debt, and some people will claim that it's a very important element.

Mr. **Kubarych**. You face in the tender offer area the biggest dilemmas of almost any of the financial policy matters that you face. Why is it a dilemma? It's because that you need accountability in the corporate sector. And you get accountability in several ways. One of the ways is exposure to the market, and one of those ways that exposure is governed or bounded is by tender offer legislation and SEC rules. And so, obviously, there is a tradition that it should be done on a level playing field where the interests of the economy at large are protected.

I can remember back to that excellent set of hearings that were held, I think it would be now 3 years ago, on tender offer legislation. You were participating in a lot of that. I testified at an SEC roundtable on this.

The basic dilemma is that if you do too much that discourages tender offers, you do a disservice from an economic point of view because you lose some of that accountability.

Senator **Proxmire**. Well, I think that's right.

Senator **Sarbanes**. Yes, but if you don't do enough, you allow this kind of speculator to prevail over the producers.

Mr. **Kubarych**. Well, what I would emphasize, sir—and I said before—is the excessive debt component of some of these offers, and also the lack of, shall we say, clarity.

Senator **Proxmire**. Our legislation gets at that.

Mr. **Kubarych**. Sir.

Senator **Proxmire**. Our legislation gets at that.

Mr. **Kubarych**. Yes, I know.

Senator **Proxmire**. It gets at that issue.

Mr. **Kubarych**. And that is probably the right—I am not going to comment specifically on that here, but I think that the focal point on whether or not there is excessive debt involved in an offer seems to me legitimate.

Senator **Proxmire**. I just have one other question for Mr. Wyss.

Mr. Wyss, you made a very interesting analysis of the outlook for 1988 based on the fact that there are some negative factors. Savings are up, which may be a good thing, theoretically. But from the standpoint of the economy, if people are saving more, they're spending less. Housing is down, and down very sharply, and the people who are the experts in the housing area seem to feel that we're in trouble. They think there is going to be a recession because of it. You know, housing starts were down pretty sharply last month, and they think they'll be down this coming year.

Now, on the other hand, the positive elements, you seem to stress very heavily the foreign sector. And I am not so confident about that. As was pointed out either by you or one of the other witnesses this morning, the stock market drop was a global drop. The whole free world suffered. And it seems to me that to rely on the foreign sector to lift this economy, which has been lifting the rest of the world, really, for the last 3 or 4 years is expecting a great deal.

Furthermore, as our balance of trade improves—that's a zero-sum game—their balance of trade worsens and their economies tend to worsen.

So, should we place this much reliance on the improvement in the foreign sector?

Mr. **Wyss**. Reliance on foreign trade is dangerous because it makes us dependent on what the foreign economies do. You're right. I think right now there is some evidence that foreign economies are beginning to do the right thing. You can particularly see that in Japan, which now appears to have done a pretty good job.

Senator **Proxmire**. Do you say the right thing: do what we do, go into debt, spend more money?

Mr. **Wyss**. No, no, no.

Senator **Proxmire**. And save less?

Mr. **Wyss**. No. Please. [Laughter.]

Senator **Proxmire**. Well, that's what the Secretary of the Treasury seems to be asking them to do.

Mr. **Wyss**. But you can see a very sharp pickup in domestic demand in Japan, which is taking some of the heat off the rather slow export growth that they've seen over the last year. And I think the Japanese have finally accepted the fact that their export surplus is going to be shrinking as our trade deficit shrinks. They have to balance. Not everybody can run a surplus. Somebody in the world has to have a deficit or everybody has to be even. And Germany and Japan and the four newly industrialized countries—the NIC's—in Asia are the ones that are going to have to do most of the adjusting.

Senator PROXMIRE. As their unemployment goes up, as their income tends to decline, which is going to happen as they do this, it seems to me that's a balancing of risk factor.

Mr. WYSS. I am not sure their income has to decline, because if they follow the Japanese pattern—which is to get the domestic economy going, increase their own internal investment, increase to some extent their own internal consumption—then domestic demand can take over the weak exports, just as in our economy we expect the strong exports to offset the weak domestic spending.

They have to do the mirror image of what we have to do over the next 2 years.

Senator SARBANES. What about circulating their surpluses to contribute to Third World growth, which would expand the world economy and benefit our own trade position markedly, particularly as they must do, if they do it, on a multilateral, not a bilateral, basis?

Mr. WYSS. Japan is already starting to do some of that.

Senator SARBANES. It is doing some of it bilaterally, though, rather than multilaterally.

Mr. WYSS. Mostly bilaterally.

Senator PROXMIRE. I want to ask you gentlemen. I hesitate to interrupt, but I do want to ask one other question. I mentioned the new Palgrave, which some of you may or may not have paid any attention to. But that suggests that what we lack now is an economic consensus. The economists just can't agree on what to do, according to this Palgrave conclusion, whereas right after World War II there was a marvelous consensus that resulted in the International Monetary Fund, the World Bank, GATT, and an agreement internationally for progress.

Do any of you want to speak to whether or not the economists can give us any general leadership now, or are they sort of divided and we just have to do the best we can?

Mr. WYSS. There's an old line that if you laid all the economists in the world end to end they still wouldn't reach a conclusion. [Laughter.] There is probably some truth in that. But I think there are some elements of strong consensus. One is that the imbalances in the U.S. economy have to be reduced. We have to reduce the Federal deficit. We have to reduce the foreign deficit.

Another is that we have to maintain a stable monetary policy. Now, there is a lot of disagreement as to exactly whether it should be a little looser or a little tighter. But I think there is a clear perception that we cannot risk inflation as a way of getting ourselves out of the temporary recession risk that we have in 1988.

But if you go much beyond that, I don't think there is a lot of consensus right now.

Senator PROXMIRE. Thank you.

Thank you, Mr. Chairman.

Representative WYLIE. Just two more questions. I think we are too dependent—or at least this is my own personal judgment—on the inflow of foreign capital. And I think you sort of agreed with that. I am not real sure what we do about it yet, even after listening to the panel this morning. And may I say that the panel has been most impressive and I have enjoyed the discourse.

The hearing this morning has rather appropriately, I think, focused on the important role of the financial sector and the Federal Reserve regarding the performance of the U.S. economy in 1988.

I think it was Professor Havrilesky who said that there have been considerable signaling by the administration to the Fed over the past several years. Is that a fair statement of what you said?

Mr. **Havrilesky**. Yes. In the early 1980's.

Representative **Wylie**. And it must have worked, because the economy has been fairly strong during that period of time. Certainly, monetary policy and the stability and confidence in the financial markets are very important.

However, the economy is more than money, and as you pointed out, productivity growth of American workers was up last year. Gross domestic private investment was up. Both of these factors, productivity and investment, have a bearing on economic performance, too. And your forecast for 1988, as far as the gross national product growth, takes this into account.

Mr. Wyss, in view of all this and in view of the strong economic performance that we've had, why have the financial markets been so pessimistic for the near future—or the near past, I should say?

Mr. **Wyss**. Well, I think the financial markets were overly optimistic.

Representative **Wylie**. Pardon me.

Mr. **Wyss**. I think the financial markets were overly optimistic back in August and September, July and August particularly, when they were moving up to that August 25 peak that we saw. I really believe a lot of what happened, on October 19 particularly, was a reaction to the overvaluation in the market.

It was a market that perceived that it was overvalued, in part, because the Federal Reserve was tightening policy very markedly, with interest rates climbing up to 10.5 percent on the long bond right before the crash, combined with what appeared to be a breakdown of the economic coordination between the major industrial countries.

I think the markets got scared of the results of that policy. They had every right to get scared. I think they probably overreacted.

Representative **Wylie**. Anything to be concerned about?

Mr. **Wyss**. People are still very nervous, and I think one important issue right now for the Federal Reserve and the administration and for Congress is that we have to keep things calm and not make any too-sudden moves.

Representative **Wylie**. Mr. Juster.

Mr. **Juster**. The question being what ought we to worry about on policy?

Representative **Wylie**. Why are the financial markets rather pessimistic, given the fact that our economy seems to have been very strong and rather stable and, as far as your predictions here this morning generally are concerned, the economic outlook is satisfactory.

Mr. **Juster**. Well, my answer might be a little different than what you have just heard. The financial markets basically look at the future of the economy. If the financial markets do anything, they take account of what is likely to be happening 1 year, 2 years, 5 and even 10 years hence.

I think part of the nervousness in the financial markets results from uneasiness about the long-term implications of the current set of policy problems which the U.S. economy is not very adequately coping with. It's not that we are necessarily doing badly at coping with them, but we're not doing as well as many would like. And I think that is partly what makes the financial markets nervous. They visualize problems that are not currently on the horizon of this year's output growth or even this year's inflation rate.

It's a little hard for me to see why the markets suddenly got so nervous on October 19. Why was it different than on October 18? I don't think you can find anything there except some event which triggered. But I think there was a growing basic uneasiness about the long-term consequences of the current set of economic policies in place in the United States, and were some of them going to come home to bite us in 2 years, 5 years, whatever.

So, I think that is partly what accounts for the nervousness, uneasiness about the future.

Representative WYLIE. Well, that is back to managing the public debt and our trade balances as a worry coming up?

Mr. JUSTER. Yes, I think so.

Representative WYLIE. The investment bankers wanted to call it a market adjustment rather than a crash. So, I have used that expression now. It wasn't just a market adjustment then?

Mr. JUSTER. I don't think 500 points is just a market adjustment.

Representative WYLIE. You think it was more than that?

Mr. JUSTER. One thing economists would probably all agree on is that the world is different if the market had neither gone up nor gone down so sharply than if it did in fact go up and did in fact go down sharply. That is just a different ballgame, having expanded in that way and then dropped like a rock.

Senator SARBANES. Which is where the trading practices that the Brady report pinpoints may be highly relevant?

Mr. JUSTER. Yes.

Senator SARBANES. In other words, without those, you might have had a downward movement and an adjustment?

Mr. JUSTER. Right.

Senator SARBANES. But the perception of it would have been very different?

Mr. JUSTER. Right. Right. But that's a hard question to answer, I think.

Representative WYLIE. Just a followup question. In table 4 of your prepared statement, Mr. Juster. I want to be able to understand this. The stock market has doubled in value, as far as the Dow-Jones Industrial is concerned, since 1983 up to now.

Mr. JUSTER. That would be correct.

Representative WYLIE. That's right? So, can we just double those figures if I want to be able to understand the charts?

Mr. JUSTER. Well, yes and no. My guess is that the doubling would mean any figure which is there in dollars on the stock price side you could roughly double. For any figure in percentages, my guess is it wouldn't change very much, because I think the structure of these things is very stable over a long period of time. So, a dollar figure, yes, where it says average stock price is x, you better make it about $2x$ or else it won't be right for the current environment. Yes.

Senator **Sarbanes**. Yes; but the percentage of it that was held by the different wealth and income——

Mr. **Juster**. I think that would be very stable.

Senator **Sarbanes**. Yes.

Mr. **Juster**. Yes. Any percentage number there, my guess is that it would not change a lot.

Representative **Wylie**. Thank you.

Thank you for your excellent testimony.

Senator **Sarbanes**. Well, gentlemen, we appreciate it. It was a most informative and enlightening panel, and we know a lot of work went into the preparation. We are very grateful to you.

The committee stands recessed.

[Whereupon, at 12:34 p.m., the committee recessed, to reconvene at 10 a.m., Friday, January 22, 1988.]

THE 1988 ECONOMIC REPORT OF THE PRESIDENT

FRIDAY, JANUARY 22, 1988

Congress of the United States,
Joint Economic Committee,
Washington, DC.

The committee met, pursuant to recess, at 10:05 a.m., in room SD-628, Dirksen Senate Office Building, Hon. Paul S. Sarbanes (chairman of the committee) presiding.

Present: Senators Sarbanes, Proxmire, Melcher, and Bingaman; and Representative Scheuer.

Also present: William R. Buechner, professional staff member.

OPENING STATEMENT OF SENATOR SARBANES, CHAIRMAN

Senator Sarbanes. The committee will come to order.

Today's hearing is the second in a series of hearings which the Joint Economic Committee is conducting in conjunction with its review of the President's 1988 Economic Report.

We have with us this morning a distinguished panel of policy analysts who will focus on the economic outook and appropriate economic policies for 1988. The hearings will continue in the weeks ahead, when the committee will actually receive the President's Economic Report, with testimony from Beryl Sprinkel, Chairman of the Council of Economic Advisers, and Treasury Secretary James Baker. We also expect to hear from the new Chairman of the Federal Reserve, Alan Greenspan.

We are entering a year, I think, of unusual uncertainty with respect to the economic outlook. Largely because economists have no precedents from which to predict the effects of a decline in the stock market of the magnitude of the October 19 decline, GNP growth rate predictions vary more widely than usual, ranging from minus 2 percent to plus 3.7 percent.

Although much of the uncertainty centers around the effect of the decline in the market, there are a number of other causes of concern, including the high consumer debt burden and low savings rate; the prospects for continued slow growth in the rest of the world; the persistent volatility in the capital markets and uncertainty over the course of interest rates; the spending and revenue packages in place pursuant to Gramm-Rudman-Hollings; and the downward trend in new housing permits over the past year.

Most economists expect these factors to mean slower economic growth in 1988 than in 1987, with most of the predictions falling in the 2 to 2.5 percent range, a percent or more below last year's growth.

Yesterday's witnesses before the committee generally agreed with this forecast of an economic slowdown. Much of yesterday's session was focused on the role of monetary policy in determining whether even such modest growth can be achieved and, in particular, on the danger that in the absence of clear signs that the trade deficit is on a sustained and steady downward path and may prove difficult to focus monetary policy solely on assuring domestic growth.

This potential dilemma was recently put in this way by Onno Ruding, Chairman of the Policymaking Committee of the IMF, who said that the United States will have to "tailor monetary and interest rate policies more to external considerations." He then went on to say, "My American friends are not accustomed to the fact that the U.S. is a highly indebted country."

We look forward to hearing from our panel this morning, which consists of Nariman Behravesh, senior vice president of the WEFA Group; Alan Blinder, professor of economics at Princeton; Robert Eisner, professor of economics at Northwestern; Irwin Kellner, chief economist of Manufacturers Hanover; and Allen Sinai, chief economist at the Boston Co. and Economic Advisors, Inc.

Gentlemen, what we will do is, we will hear from all of the panel. We have your prepared statements and they will be included in full in the record, and if you can keep your testimony to 8 to 10 minutes, or less if possible, and we will have a member of the staff slip you a piece of paper when you reach the 8- or 9-minute mark, and then at the end of that we will question the entire panel and treat it as one discussion.

Do any of the other members of the committee have any statements?

OPENING STATEMENT OF SENATOR PROXMIRE

Senator Proxmire. I would just like to make a brief statement, Mr. Chairman.

I want to congratulate you on the quality of this panel. The Joint Economic Committee over the years has had distinguished economists appear before us. I am really in awe this morning. This is really a feast. I can't remember a more distinguished panel, or a panel that is going to be more exciting than this one.

I will just mention one name because Robert Eisner is a man that I greatly admire, and with whom I disagree strongly on a few things. Robert Eisner is the new chairman of the American Economic Association. And I reminded him earlier that the former chairman of this committee, Paul Douglas, was the only Senator who ever served who was president of the American Economic Association, and who made a tremendous contribution, it seems to me, to understanding of the Congress as to economic affairs.

Mr. Eisner is kind of a George Bernard Shaw of economics. He takes the totems that we worship and he shows that they are nothing but totems. I think it is a very constructive, positive contribution, even though he may be a little wrong here and there. But we are all human. [Laughter.]

Senator **Sarbanes**. Senator Bingaman.

Senator **Bingaman**. I have no statement, Mr. Chairman.

Senator **Sarbanes**. Congressman Scheuer.

OPENING STATEMENT OF REPRESENTATIVE SCHEUER

Representative **Scheuer**. Mr. Chairman, I wish to congratulate you and tell you how much I admire your leadership in arranging these hearings, as well as a great many other things you have done. It is absolutely essential that the country come to grips with the perilous economic problems that face us. They say that war is too important for the generals. And I guess our budget deficit is too important for politicians. We are going to have to turn into statesmen and really put politics aside.

This is a marvelous panel. These panels and other panels are going to help us know intellectually what ought to be done for our country in terms of getting some control over our budget deficit, our trade deficit, and then it is up to the statesmen among us to reach across party lines and do what is right for the country.

I think that with the power of these hearings and the surge of ideas that will come from them, then it is up to us and it is up to Democrats to give some Republicans some cover on their wish to do something about the entitlement programs, and it is up to Republicans to give some cover to Democrats on our wish to take a look at the whole spectrum of possible "revenue enhancements." And it will mean some judicious, fair, and selective tax increases.

This is the year that will try men's souls, especially in the House and the Senate, and we couldn't start it off on a better track than having this flow of intellectual excellence which you have arranged, Mr. Chairman. I congratulate you again.

Senator **Sarbanes**. Gentlemen, you have heard all the praises ahead of time, so the burden is really on you now. We look forward to hearing from you.

Mr. Eisner, I think we will start with you and then move out in either direction. We will go to Mr. Kellner, and then back to Mr. Blinder, and then over to Mr. Sinai and, Mr. Behravesh, we will finish with you.

You go ahead, sir.

STATEMENT OF ROBERT EISNER, PROFESSOR OF ECONOMICS, NORTHWESTERN UNIVERSITY

Mr. **Eisner**. Thank you, Mr. Chairman. That will give my colleagues an opportunity to shoot me down. But I will proceed happily.

First, let me respond quickly to some of the questions raised in the chairman's letter. Answers can be brief on those. On effects of the stock market crash, I guess I would join the general consensus that they cannot be good. That suggests that there may be some falloff in consumption, some falloff in business investment. How much is hard to tell. I am not going to predict a recession. I am not a "gloom and doomer." I would accept the general forecast that it may result in a loss and perhaps a percentage point or so in the rate of growth, but we have to see.

Second, on the matter of the dollar, the dollar should in my opinion be allowed to seek its free market economic level. We have no business holding it up. We have no business encouraging foreign countries to hold it up. If the dollar does fall further, as I think it probably will in view of our still continuing trade deficits, that can have generally favorable consequences for the American economy. It will, of course, mean higher exports. It will tend eventually to reduce the trade deficit further, and if accompanied by an appropriate Federal Reserve policy, which is the next item, it can go along with lower interest rates, a stimulus to business investment, and indeed a reduction in the budget deficit.

That leads me to just say a few further words on the matter of Federal Reserve policy. It is very important and I think critical that we do not have a Federal Reserve policy which holds back the economy with the foolish aim of fighting an inflation which is not serious, which is not indicated to be seriously in the cards in the future. The Fed should not follow a policy of trying to hold up the value of the dollar. That would hurt our economy. The very method of holding up the value of the dollar, higher interest rates, shortage of money supply, will hurt the economy.

A Federal Reserve policy should be directed at what should be the prime goals of our economy: maximum growth, high employment, and high productivity. And that, I think, is one of the most critical policy issues facing the Nation.

Now, on the matter of a downturn, if there is a downturn as seems to be developing, of course there should be an easier monetary policy and there should not be a restrictive fiscal policy.

I will concentrate, then, my remaining remarks on what has obtained me a lot of notoriety in matters relating to what I have indicated in my book of last year, "How Real Is the Federal Deficit"—it is now 1986—and quite a number of public statements. I hope I don't offend too many of the audience or the members. There are a lot of totems around and there is a lot of conventional wisdom which gets repeated over and over again.

Let me say first that budget deficits do matter. Second, let me say that you have to know what you are talking about when you talk about budget deficits. They have to be measured right. We don't measure them right.

One thing to keep in mind from the very beginning is, if you are talking about government impact on the economy, you have to look not only to the Federal Government deficit; you want to look at State and local government deficits. In fact, State and local governments are generally in surplus. If you take the combined budget figures, you find the deficit is much less than we usually talk about.

The second thing to keep in mind is that the Federal Government, in calculating and reporting its deficits and keeping its accounts, does it in a rather unique way, unlike almost any State and local government, and like no private business. That is, it does not keep a separate account as between current expenditures and capital expenditures.

The way the Federal Government runs its budget or reports it, virtually every private business of any substance would be in deficit, because private businesses, like the Federal Government, have their debt growing year after year. They don't call it a deficit; they don't call it a loss; they are making profits. But the point is that the expenditures they make for equipment, for buildings, if they were building roads, for roads or bridges, those expenditures are put in a separate account, in a capital account. And that, I think, is lost sight of over and over again in discussion.

The third thing to keep in mind, of course, I think all of us are aware of, is that our deficit depends very much on that state of the economy. The economy slumps, the deficits goes up. As tax revenues stop coming in, or come in less, government expenditures for things like unemployment benefits increase. You cannot allow yourself to be locked into some particular deficit target in view of a shifting economy. You have to recognize that that would be utterly counterproductive. It would mean, when you had a recession, you would have to raise taxes or cut spending, drag the economy down all the more. On the other hand, where there is an inflationary boom, you might find that because of the boom, you have the deficit down; and at that time you would be working to increase it.

Next, a major correction not made is for inflation. That will lead me then to my final point and recommendation on all of this, on the kind of targets you should have on deficits and what would clarify thinking and enable you to pursue, I think, policies that would be in the interests of the Nation.

What we should be concerned about is the level of debt of the Federal Government in relation to its income. In fact, that is what we would be concerned about if we were private individuals, if we were business or the like. For the most of us, debt keeps going up. If we had a debt of $50,000 or $100,000 25 years ago, that would be considered larger than a debt perhaps twice that amount today. And that is, of course, for one obvious reason. With inflation, the debt in constant dollars is less than double what it was 25 years ago.

The same thing is true for the Federal Government. What is more, incomes keep growing. Our real incomes keep growing. If there is concern about a deficit in any economically relevant sense, it is a deficit that allows the debt to grow faster than your gross national product, which is the measure of the income of the Nation.

If you take the Federal debt, then, if you keep adjusting it for inflation, you find that because of inflation of let's say even 3 percent a year, with a Federal debt of $2,400 billion, about what we have of total debt, $2,400 billion, 3 percent of that is $72 billion. What that means is that if you have a deficit of $72 billion, your debt in real terms is not increasing because the inflation tax, good or bad, of that 3 percent is knocking $72 billion in real terms off the assets that the public has in the way of this government debt and off, therefore, the real value of the debt of the Federal Government.

Now, you can concentrate on that as you wish later, if the arithmetic is puzzling. Let me give you just one other bit of basic arithmetic, which I think, if I could ever persuade enough of you to think that way, might change the tone of the debate so you could get down to really constructive issues of how to have a serious and effective and optimum budget.

Balance, I would suggest, is not a zero deficit. I mean that makes really no economic sense in terms of the way we are accounting for the deficit, in terms of ignoring inflation, in terms of State and local governments, and everything else. However, what could make sense as an initial target is to keep your debt from growing faster than your income. Think about it. It is a perfectly sensible rule of thumb for any business. It is a rule of thumb; it is not the bottom line. It is a rule of thumb for a business, for a private individual. For the debt to grow no more than the national income, it means that debt can grow no more than at the rate the national income or gross national product is growing. They are growing at about 6 percent a year, let's say. That means that debt can grow at 6 percent a year and stay in that same ratio, currently about half of gross national product, or eight-fifteeths of it.

A 6 percent growth in the debt, if you are starting at $2,400 billion, is $144 billion a year. That, then, would be a deficit which is, in a sense, balance; which leaves you in the same place. That can be an initial target if you wish.

Now, whether that target is desirable or not depends upon what the budget is directed to. If you are investing in the future, if you are building roads and bridges, if you are educating people, if you are investing in your natural resources, if you are investing in the health of the Nation, just as IBM or General Motors or any other company, it may pay to go further into debt.

And the second consideration is what the state of the economy is. The Government has a particular responsibility. When it reduces its deficit, it reduces the amount of purchasing power of the private economy. Sometimes that is good; sometimes it is bad. As long as you have a situation where you have excess capacity, where you have serious danger of a recession, where you have unemployment below the minimum, which is all I think should be acceptable, it is no time to talk about reducing the deficit. Maybe politically it is a good thing to talk about and maybe it isn't, but in terms of the sheer economy, your bottom line should be the state of the economy, not the state of the budget, and that bottom line then involves investing in the future; it involves a high GNP and a high level of employment.

Thank you.

Senator SARBANES. Thank you very much.

[The prepared statement of Mr. Eisner follows:]

PREPARED STATEMENT OF ROBERT EISNER

Budget Deficits: Rhetoric and Reality

Whatever the ills of the economy, real or imagined, the news media, most politicians and a fair amount of the economics profession are quick to point to the culprit: "The Budget Deficit." No matter that few appear to know or care precisely what deficit they are talking about or how it is measured. No matter that few bother to explain in terms of a relevant model just how government deficits may be expected to impact the economy. No matter that few offer any empirical data to sustain their judgments.

So budget deficits cause inflation. Budget deficits raise interest rates. Budget deficits bring on the trade deficits. Budget deficits crowd out investment. Budget deficits are an irresponsible mortgage on the future. And most recently, budget deficits caused the stock market crash! Is there truth in any of these assertions? Or does it all depend?

Budget deficits do matter and their effects, contrary to Barro's "Ricardian Equivalence Theorem" can be substantial. Budget deficits can however be too small as well as too large. To know which, you have to measure them right. And you have to analyze their role in the world in which we live. Pure Walrasian and rational-expectation market-clearing models may prove more useful for academic advancement than for promotion of the economy.

First, well-known I trust but worth repeating, a handier economic tool than the official "unified" budget is the national income accounts measure. This at least avoids some of the nonsense of counting sale of real or financial assets as "receipts" and the purchase of financial assets as "expenditures." The two measures can differ non-trivially. In fiscal 1985 the deficit on a national income accounts basis was indeed $28 billion less than the unified budget deficit; the difference was only $7 billion, however, in fiscal 1986 and estimates for fiscal 1987 and 1988 show larger national income accounts deficits.

Second, while what goes on within the beltway is important, Washington is not the only seat of government in the United States. Along with the 1986 federal deficit of $205 billion (on a national income accounts basis) there was a state and local government _surplus_ of $57 billion. That knocks the total government deficit for 1986 down to $158 billion.

Third, the federal accounts make no distinction, in the expenditures contributing to a "deficit," between current expenses and investment. Most of the large corporations in the United States would find themselves in deficit if they had to include capital expenditures rather than depreciation charges in their profit and loss statements. The Office of Management and Budget classified $122 billion of projected "investment-type" federal outlays for fiscal 1987 as expenditures on physical assets and an other $75 billion "for the conduct of education, training, research, and development and for other investment-type programs" (_Special Analyses_, p. D-13). If we were to substitute a reasonable estimate of capital consumption for these $197 billion of investment expenditures, we would reduce the measure of the federal deficit by another $70 billion or so. With similar adjustments for state and local budgets, particularly if we were to capitalize the vast expenditures for education and include in the national income account budget only the depreciation of human capital, we might well wipe out the entire government budget deficit. And with it would have to go the oft-repeated charge that our budget deficits mean that we are reckless with our future. Our public policy may well be mortgaging the next generation, but it is not "the deficit" that is doing it.

Indeed, there is only one way in which we can allow today to injure tomorrow. That is to act today so that tomorrow has less productive capital, and that includes capital of all kinds -- business plant, equipment, and inventories _and_ government, household and nonprofit institution capital and human and intangible capital in all sectors. The impact of budget deficits-- and budget deficit reduction -- on intertemporal distribution then comes back smack to their impact on net investment, on all net investment.

But before we can see that impact clearly we have to develop an economically meaningful measure of the deficit. As Paul Pieper and I have indicated in a series of papers, and as I have elaborated in How Real Is the _Federal Deficit?_ and elsewhere, we must look at the _real_ deficit. This means for many critical purposes a measure of the deficit that corresponds to real changes in the government's debt, and hence changes in the public's perception of the value of its holdings of that debt.

For going back to Pigou, Haberler, Lange and Patinkin, increased holdings of government obligations by the private sector -- money or interest-bearing-- create an excess demand for goods. This must drive up output or prices or both. In the somewhat more recent formulation of Modigliani's life cycle theory of consumption, they generate increases in current and planned future consumption demand. In terms of portfolio allocation theory, they also generate a demand for real, income-earning assets. This, along with rational business behavior in the face of anticipations of increased future consumption, generates increased investment demand as well.

Whether this increased demand can be effected in real goods depends upon whether the economy is capable of increased production. And this comes back to the issue that provoked modern macroeconomics half a century ago, and which remains critical to any policy decisions today. That is the issue of unemployment and unused resources. If there is no involuntary unemployment and there are no idle resources, increased demand cannot generate more output; it can only bring higher prices. This is apparently the world of Milton Friedman and Robert Lucas, although they variously allow for short run real effects as economic agents are slow or asymmetrical in their assimilation of information. But if you doubt that somehow our economy has generally been at its "natural rate" of employment, you may not be shocked to learn that real structural budget deficits have over the last several decades proved stimulatory to the economy.

And that is exactly the fact. If I may trot out again findings (which may be perused in a set of tables and charts accompanying this presentation) reported last year in my book, inflation-adjusted high employment budget deficits, at least since 1955, have been associated with greater subsequent growth in real GNP (table 9.1, equations 9.1 and 9.2). This has not, it should be added, been a spurious consequence of associated monetary policy. Real changes in the monetary base have indeed also been associated positively with changes in real GNP (although actually not correlated with the structural budget deficits), but multiple regressions involving both variables leave the deficit parameters robust, and with pride of place (table 9.3). Along with this relation, as might be expected, we find an inverse one with unemployment (table 9.1, equations 9.3 and 9.4). Bigger deficits and larger increases in the monetary base have been associated with larger decreases (or lesser increases) in unemployment.

But that is only part of the story. Budget deficits have not only been related positively to growth of GNP as a whole, but also to growth of its components of both consumption and investment (table 9.8). The evidence is not that deficits have crowded out gross private domestic investment. There has rather been "crowding in."

It is true that the deficits have also related negatively to net exports. Larger deficits have meant more consumption of foreign goods as well as domestic goods and hence larger imports.

It is widely suggested that structural budget deficits contribute to inflation. That is presumably implied by the assumption that the economy is generally at its "natural" or "non-accelerating inflation rate of unemployment" (NAIRU), unless perverse policy temporarily drives it off that rate. I have mined the data of the last thirty years shamelessly in an effort to test that argument and I challenge others to do likewise. I find no support for the proposition that the federal budget deficit, by any measure, contributes to inflation. If anything, the opposite appears to be true. The regression coefficients on the deficit, as reported in an appendix to this paper (and shown in Table 7), suggest that deficits may contribute to a lessening of inflation!

What has been going on and where do we go from here? First, budget deficits did not contribute to the inflation of the 1970's, which reached its peak in 1981. As Pieper and I have pointed out, we did not even have real deficits in the 1970's. The inflation tax converted supposed deficits into substantial surpluses until the latter half of 1982 (table 3). It was large structural surpluses, along with tight money, that brought us the worst recession since the great depression of the 1930's and unemployment of 10.7 percent by December 1982.

It was then the huge swing to real deficit in the latter half of 1982, along with the switch to easier money, and the continued deficits thereafter which sparked our substantial economic recovery. It may of course be noted, as was probably reflected in our regression results, that the large deficits were accompanied by a sharp reduction in the rate of inflation as well as interest rates. The recovery has been long but sluggish in considerable measure because of large and growing trade deficits. While these may be laid partly at the door of the deficit-fueled growth of the economy which raised imports, key responsibility must be attributed to still too restrictive monetary policy. This has kept interest rates and the value of the dollar too high. With all of its recent drop, the dollar remains at or above the levels of 1980. The major surge of productivity among our key international competitors since 1980 clearly called for a considerably lower value of the dollar.

What does that indicate now? To begin, with all of the nonsense in current calculations of the deficit, "balance" in the conventional sense makes no sense. With even a modest inflation rate of three percent per annum, for example, the inflation tax on holders of our current federal debt of $2,400 billion implies that nominal balance would be a real surplus of $72 billion. A much better concept of balance, in a growing economy such as ours, with or without inflation, would be one in which the debt-income ratio were constant. I offer this not as an iron-clad imperative, regardless of circumstances, but rather as a rule of thumb which would, one may note, be equally appropriate for an individual or a corporation. For the federal government, the balance then would mean keeping constant the ratio of debt to GNP, now about 8/15 ($2,400 billion divided by $4,500). With GNP growing at about 6 percent per year, that means the debt could grow at 6 percent per year, which comes to a current deficit of $144 billion (as shown in table 6). It may be noted that this is only trivially below the official deficit of the fiscal year 1987, although projected deficits for 1988 are somewhat higher.

I say that this rule of balance should not be engraved in stone -- or in the constitution. At times by even this measure we should have a deficit, at times a surplus. It depends on the shape of the economy, on associated monetary policies and on relative needs for public and private investment. At least until the just legislated reductions our current federal deficits did appear large for the long run. They did imply an increasing debt-to-GNP ratio. Over the long run, it may be argued, they should come down. But even that judgment should depend on how much of our resources we are devoting, and should devote, to private versus public investment. If public investment in the education and health of our people, in our stock of basic scientific and technological knowledge and in our collective resources and infrastructure are to be increased, continued large deficits may well be in order.

How rapidly deficits should be reduced right now, in the aftermath of Wall Street's Black Monday is another matter. Our imperative should be avoidance of a recession, the danger of which was certainly increased by the trillion dollar loss in values of financial capital. Projections of at least a decline in the rate of growth of GNP are widespread, and with that an increase in our still too high unemployment. (Too many of us, I would insist, have allowed our targets of full employment to recede with the political winds and misguided concern for inflation.)

At this time, therefore, our prime policy instrument should be monetary policy, and it should be much more stimulatory. Significant and sustained increases in the monetary base would lower interest rates and encourage a further decline in the dollar. Both gross private domestic investment and exports would thus increase. Not only would our trade deficit finally come down, but the budget deficits themselves would be reduced. Lower interest rates would contribute directly, as each percentage point drop would save the Treasury some 20 or 25 billion dollars in annual interest payments within two or three years, as the debt is rolled over. And the stimulus to the economy would further reduce the deficit as tax revenues rise and unemployment benefit payouts decline.

And what about the stock market? Those that have trumpeted budget deficits as the cause of the crash would do well to think again. I have been gleefully passing out copies of charts and regressions from my 1986 book showing that increases in deficits were strongly correlated with _increases_ in the Dow. I can of course add that the October crash followed immediately on the news that "the deficit" had declined from $221 billion in fiscal 1986 to $148 billion in 1987. Further reductions in the structural deficit might make matters worse!

Appendix

As shown in Table 7, when annual observations from 1956 to 1985 are used to regress the rate of inflation on its own lagged value and lagged values of the inflation-adjusted structural deficit and rate of unemployment (with a shift variable, as in previous work, for the relatively higher inflation of the two latter decades of the period), the surplus coefficient is close to zero, and positive. Taken literally (and ignoring the large standard error) it suggests that each percentage point of deficit as a ratio of GNP subtracts 0.2 percentage points from the rate of inflation the next year, and 1.6 percentage points in the long run. Omitting the unemployment variable to test the possibility that the effects of larger deficits have been picked up in lesser unemployment which they would have brought about, offers no comfort. The coefficient of the price-adjusted high employment surplus variable is still positive and suggests that each percentage point of deficit subtracts 0.350 percentage points from the rate of inflation the next year, and 0.9 percentage points in the long run.

And lest one think this is all an artifact of my inflation adjustment to the deficit, I can report that relations involving the unadjusted high-employment deficit are similar, as are those with the actual deficit, adjusted and unadjusted. Adding changes in the monetary base to the regressions does no good either. There should of course be much more to properly specified structural relations, including variables measuring supply shocks and variables reflecting changing expectations, but it may well be argued that the evidence that structural budget deficits have contributed to inflation has not been found.

Table 1. Federal government consolidated balance sheet, including Federal Reserve and credit agencies, at market or replacement values. (Some figures do not total because of rounding.) [From (*1*) with permission, copyright 1986, by The Free Press, a Division of Macmillan, Inc.]

Item	Year and amount (billions of dollars)			
	1945	1960	1980	1984
	Assets			
Tangible	186.2	205.8	822.5	1118.0
Reproducible assets	179.3	187.4	648.1	915.2
Residential structures	2.2	3.2	20.9	24.5
Nonresidential structures	28.9	60.8	262.9	299.6
Equipment	88.3	65.6	228.6	395.6
Inventories	59.9	57.7	135.7	195.5
Land	6.8	18.4	174.4	202.8
Financial	102.8	124.7	720.9	887.4
Currency and demand and time deposits	31.3	12.8	31.3	40.7
Gold	20.1	17.8	155.9	81.0
U.S. government securities	31.5	35.2	129.8	172.3
Treasury issues	31.5	35.1	120.6	162.7
Agency issues	0.0	0.0	9.2	9.6
Mortgages	2.5	11.2	132.3	202.6
Other loans	4.7	25.1	201.5	288.1
Taxes receivable	9.6	12.7	7.1	−16.2
Miscellaneous assets	3.1	8.4	47.3	94.9
Total assets	289.0	330.4	1543.4	2005.4
	Liabilities			
Treasury currency and special drawing rights	2.3	2.7	13.6	17.5
Demand deposits and currency	31.1	30.6	121.5	171.4
Bank reserves and vault cash	19.0	20.4	47.3	40.5
Credit market instruments	264.5	246.7	841.9	1613.7
Savings bonds	43.2	46.5	68.4	76.1
Other Treasury issues	220.4	192.5	625.1	1296.8
Agency issues	0.9	7.8	148.4	240.8
Insurance and retirement reserves	6.5	20.5	85.5	139.8
Miscellaneous liabilities	9.2	10.9	51.8	80.4
Total liabilities	332.6	331.8	1161.6	2063.3
Net debt (total liabilities minus financial assets)	229.8	207.1	440.7	1175.9
Net worth	−43.7	−1.3	381.8	−57.9

Table 2. Measures of federal debt: gross federal debt held by the public at the end of fiscal year, in billions of dollars and as percentage of GNP, and net debt per capita at end of calendar year in 1982 dollars. [Adapted and updated from (*1*) with permission, copyright 1986, by The Free Press, a Division of Macmillan, Inc.]

Year	Gross federal debt		Net debt per capita
	Billions of dollars	% of GNP	1982 dollars
1945	235.2	108.4	8639
1946	241.9	119.8	7227
1960	237.2	47.6	3576
1970	284.9	29.4	2815
1975	396.9	26.8	2759
1980	715.1	27.8	2219
1984	1312.6	36.7	4496
1986	1744.6	41.5	5963
Change, 1945–1980	−479.9	−80.6	−6420
Change, 1980–1984	−597.5	−8.9	−2277
Change, 1984–1986	−401.4	−4.8	−1467

From Science, September 25, 1987

Table 3. Actual budget surplus or deficit on national income account, official and adjusted for price and interest effects, in billions of dollars. [Adapted from (*1*) with permission, copyright 1986, by The Free Press, a Division of Macmillan, Inc.]

Year	Surplus or deficit (−)	
	Official	Adjusted
1975	−69.3	−48.6
1976	−53.1	−44.6
1977	−45.9	−0.6
1978	−29.5	32.9
1979	−16.1	32.1
1980	−61.2	7.6
1981	−64.3	−18.3
1982	−148.2	−177.2
1983	−178.6	−101.2
1984	−175.8	−154.1

−152.7 {

+ 72.0 {

Table 4. High-employment surplus or deficit on national income account, official and adjusted for price and interest effects, as percentage of GNP. [Adapted from (*1*) with permission, copyright 1986, by The Free Press, a Division of Macmillan, Inc.]

Year	Surplus or deficit (−)	
	Official	Adjusted
1975	−1.88	−0.54
1976	−1.01	−0.52
1977	−1.06	1.30
1978	−0.73	2.15
1979	−0.08	1.91
1980	−0.65	1.97
1981	−0.11	1.45
1982	−1.06	−2.01
1983	−1.72	0.62
1984	−2.51	−1.92

Mean = + 1.76%

Mean = −1.10%

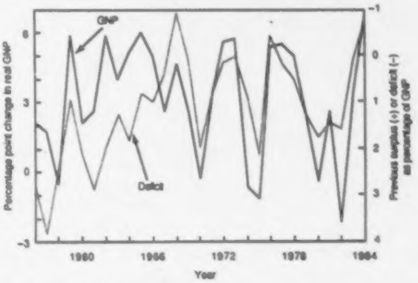


Fig. 1. Adjusted deficit and change in GNP.

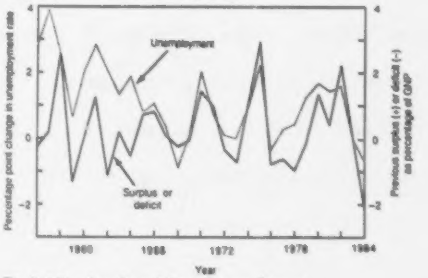
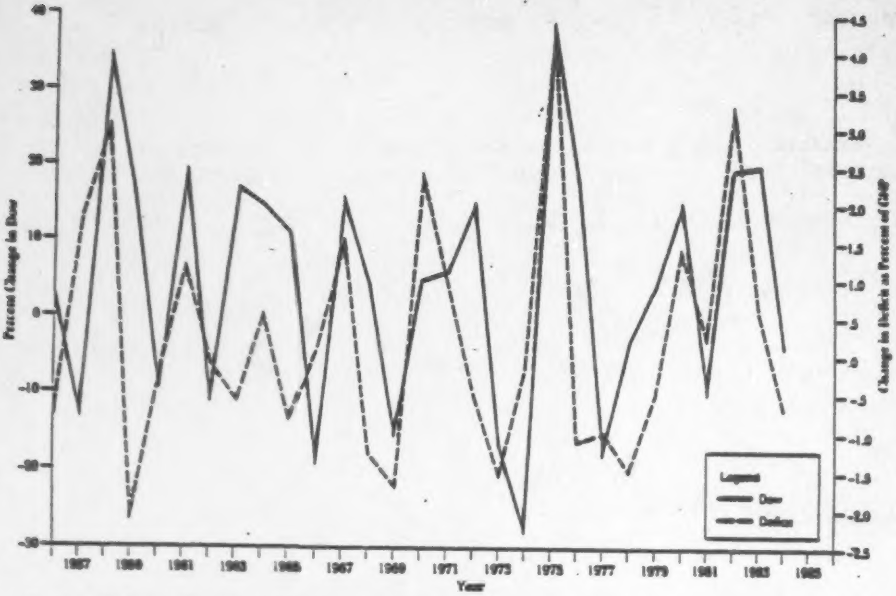


Fig. 2. Adjusted surplus and change in unemployment.

Figure 3 Changes in Dow Industrials and Price-Adjusted Deficit



From: Robert Eisner, HOW REAL IS THE FEDERAL DEFICIT?

TABLE 5. Debt, Deficits and Inflation Tax

DEBT	$1,000b	DEBT	$1,000b
DEFICIT	+ 60b	INFLATION TAX	- 100b
DEBT	$1,060b	REAL DEBT	900b
		DEFICIT	+ 60b
		DEBT	$ 960b

$1,000b to $960b = $40b SURPLUS

TABLE 6. Balanced Growth of Debt and GNP

	DEBT	GNP	RATIO
	$2,400b	$4,500b	8/15
	+ 6% 144b	+ 6% 270b	8/15
	$2,544b	$4,770b	8/15

Table 7 Budget Deficits and Inflation

$$DGNPDEF_t = b_{01}X_1 + b_{02}X_2 + b_1\ DGNPDEF_{t-1} + b_2U_t + b_3\ PAHES_{t-1}$$

t = 1956 to 1985

Variable or Statistic	Regression Coefficients and Standard Errors		Means and Standard Deviations
X_1 (1956 to 1966)	2.378 (1.004)	0.248 (0.670)	4.853* (2.646)
X_2 (1967 to 1985)	3.694 (1.060)	2.392 (1.042)	
$DGNPDEF_{t-1}$	0.877 (0.185)	0.597 (0.168)	4.849 (2.648)
U_t	-0.469 (0.177)	---	5.983 (1.663)
$PAHES_{t-1}$	0.193 (0.292)	0.350 (0.318)	1.004 (1.228)
$\hat{R}^2$	.795	.747	
n	30	30	
D-W	2.13	1.74	

$X_1 = 1,\ X_2 = 0$: 1956 to 1966

$X_1 = 0,\ X_2 = 1$: 1967 to 1985

DGNPDEF = Percent change in GNP price deflator

PAHES = Price-adjusted high employment surplus as percent of GNP

U = Unemployment rate as percent of labor force

*Dependent variable

TABLE 9.1 High-Employment Budgets and Changes in Real GNP and Unemployment

$Y_t = b_{01} + b_{11}HES_{t-1}$ for $t = 1956, \ldots, 1966$
$Y_t = b_{02} + b_{12}HES_{t-1}$ for $t = 1967, \ldots, 1984$

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
EQUATION AND MEASURE OF *HES*	DEPENDENT VARIABLE (Y)	REGRESSION COEFFICIENTS^a				SIGNIFICANCE LEVEL OF DIFFERENCE IN REGRESSIONS	$\bar{R}^2$	*D–W*
		1956–66		*1967–84*				
		b_{01}	b_{11}	b_{02}	b_{12}			
(9.1) OF	ΔGNP	3.678 (0.923)	−1.837 (0.727)	0.137 (0.677)	−3.312 (0.644)	0.0001	.529	1.71
(9.2) PA	ΔGNP	7.187 (1.125)	−1.731 (0.516)	4.421 (0.447)	−2.491 (0.416)	0.0001	.622	2.10
(9.3) OF	ΔUN	−0.880 (0.425)	0.792 (0.336)	1.452 (0.313)	1.490 (0.297)	0.0002	.503	2.18
(9.4) PA	ΔUN	−1.175 (0.583)	0.568 (0.299)	−0.455 (0.233)	1.087 (0.216)	0.002	.494	2.27

^{a}Ordinary least squares; standard errors are shown in parentheses.

Y = dependent variable: ΔGNP or ΔUN
HES = high-employment budget surplus as percent of GNP
OF = official
PA = price-adjusted

ΔGNP = percent change in gross national product
ΔUN = percentage point change in unemployment rate
$\bar{R}^2$ = adjusted coefficient of determination
D–W = Durbin–Watson ratio

TABLE 9.3 High-Employment Budgets, Changes in Monetary Base, and Changes in GNP

$\Delta GNP_t = b_{01}X_1 + b_{02}X_2 + b_1HES_{t-1} + b_2\,\Delta MB_{t-1}$
$X_1 = 1, X_2 = 0$ for $t = 1961, \ldots, 1966$
$X_1 = 0, X_2 = 1$ for $t = 1967, \ldots, 1984$

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	REGRESSION COEFFICIENTS^a						
	Constant		*High-Employment Surplus*		*Change in Monetary Base*		
EQUATION	1961–66 (b_{01})	1967–84 (b_{02})	OFFICIAL (b_1)	PRICE-ADJUSTED (b_1)	(b_2)	$\bar{R}^2$	*D–W*
(9.9)	7.442 (0.867)	0.739 (0.598)	−2.587 (0.519)	—	—	.556	1.70
(9.10)	8.633 (0.846)	4.298 (0.417)	—	−2.238 (0.363)	—	.669	1.38
(9.11)	3.228 (0.722)	2.023 (0.409)	—	—	12.398 (2.232)	.618	1.99
(9.12)	5.181 (0.973)	1.113 (0.497)	−1.433 (0.540)	—	8.678 (2.361)	.704	1.58
(9.13)	6.452 (1.250)	3.348 (0.569)	—	−1.465 (0.496)	4.523 (2.909)	.721	1.70

^{a}Ordinary least squares; standard errors are shown in parentheses.

ΔGNP = percent change in GNP
HES = high-employment surplus as percent of GNP
ΔMB = real change in monetary base as percent of GNP

TABLE 9.8 High-Employment Budgets, Changes in Monetary Base, and Changes in Components of GNP

$\Delta COM_t = b_{01}X_1 + b_{02}X_2 + b_1PAHES_{t-1} + b_2\Delta MB_{t-1}$
$X_1 = 1, X_2 = 0$ for $t = 1962, \ldots, 1966$
$X_1 = 0, X_2 = 1$ for $t = 1967, \ldots, 1984$

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		REGRESSION COEFFICIENTS^a						
		Constant						
EQUATION	COMPONENT (*COM*)	1962–66 (b_{01})	1967–84 (b_{02})	$PAHES_{t-1}$ (b_1)	ΔMB_{t-1} (b_2)	$\bar{R}^2$	*D–W*	ρ
(9.28)	Consumption	3.401 (0.675)	2.339 (0.303)	−0.642 (0.263)	2.395 (1.392)	.580	1.91	.092
(9.29)	Investment	2.613 (1.176)	1.135 (0.541)	−1.383 (0.414)	3.587 (2.411)	.570	1.99	.282
(9.30)	Government	1.195 (0.558)	0.483 (0.270)	−0.113 (0.172)	−0.660 (0.981)	.354	1.32	.473
(9.31)	Net exports	−1.615 (1.273)	−0.766 (1.012)	0.399 (0.137)	1.625 (0.811)	.512	1.45	.836
(9.32)	GNP	6.208 (1.296)	3.371 (0.585)	−1.568 (0.479)	7.172 (2.830)	.735	2.03	.174
(9.33)	Domestic demand	7.405 (1.506)	3.934 (0.675)	−2.141 (0.560)	5.149 (3.295)	.787	1.93	.155

^{a}Least squares with Cochrane–Orcutt, first-order autoregressive corrections; standard errors are shown in parentheses.

ΔCOM = change in component as percent of GNP
PAHES = price-adjusted high-employment surplus as percent of GNP
ΔMB = real change in monetary base as percent of GNP

Senator **Sarbanes**. Mr. Kellner, please proceed.

STATEMENT OF IRWIN L. KELLNER, CHIEF ECONOMIST, MANUFACTURERS HANOVER

Mr. **Kellner**. Thank you very much, Senator.

I guess, in the terminology of my distinguished colleague Bob Eisner, I would be considered a "doom and gloomer" because I am looking for a recession this year, with four consecutive quarterly declines in the gross national product starting in the current quarter.

I don't look for it to be any worse than average in terms of postwar standards, and not as bad as 1981–82. Furthermore, I don't think there is very much that can be done to avert this oncoming recession in 1988, and I believe that any efforts that might be attempted could very well be counterproductive.

Let me tell you very briefly—our prepared statement has been submitted—the logic behind this forecast. First of all, as Alan Greenspan said several months ago, we have not repealed the business cycle. We have experienced 30 recessions since records were first kept in the 1850's. The current economic expansion at the end of November was 60 months, which beat the previous peacetime record by 2 months and compares with an average peacetime upswing of only 27 months.

Second, fiscal policy tightened dramatically in fiscal year 1987, with the budget deficit shrinking by a third. Monetary policy, by various measures, has been fairly tight. The money supply has not grown since March. Short-term interest rates have climbed, starting in October 1986, and long-term interest rates began to rise in April 1987 as the bond markets reacted to the return of inflation in 1987. With the release of the Consumer Price Index the other day, we see that inflation for the year 1987, at 4.4 percent, is exactly four times the rate of 1986, and with most workers concerned about job security and not about winning wage increases, they have failed to keep up with inflation, leading to a drop in buying power.

The ongoing decline in borrowing power, because of higher interest rates, combined with the generally low level of savings and high use of debt, has led people to slow their purchases of the key big ticket items that drive our economy: automobiles and housing.

For example, in 1987, sales of new domestic cars were off by about 15 percent, after falling by a sizable amount in 1986. And in the first 10 days of January, the domestic selling rate dipped further to 5.9 million units. The other day we saw that new home construction plunged 16 percent in December, giving us the lowest annual total since recession year 1982.

I need not tell this committee how many industries depend on these two for their livelihoods, not only on the construction side, but in the after-market, when it comes to housing; home furnishings, fixtures, and appliances. And with people less likely to furnish their houses, they are less likely to be traipsing through shopping centers and less likely to buy other items as well.

Let's not forget the drop in the stock market. The decline in the stock market between August 25 and October 19 was 36 percent. I would point out to this committee that only once in this century has a drop in stock prices of this magnitude not led to a recession. And that one occasion was during World War II when a 40 percent drop in stock prices over a longer period of time was obviously offset by the ongoing military buildup.

The drop in stock prices has clearly had an impact on the consumer, two-thirds of the gross national product. Nominal or current dollar retail sales at the end of last year were 2 percent below levels reached as far back as September 1986. And if you take autos out of the picture and if you adjust for inflation, you find that at the end of last year, real non-auto-retail sales were 2 percent lower than in February 1987, a 2-percent decline in a 10-month period.

With production rising by 5 percent plus last year, the fastest 12-month rate since the end of 1984, it stands to reason that there are a lot of goods that are being produced and not sold. Sure enough, when we look at inventories at all three major levels—manufacturing, wholesale, and retail—we find that inventories are shooting up. But it is in the retail area where the inventory problem is the most severe.

Inventory-to-sales ratios in real terms for retailers are now at their highest levels in 20 years. That spans four previous recessions. Retailers are beginning to cut back their orders to wholesalers because we see that after reaching a 13-year low in the summertime, the wholesale inventory-to-sales ration has begun to go up.

Manufacturing inventory-to-sales ratios are still falling because their sales are obviously going up faster than inventories, but that will change once wholesalers realize the extent to which goods are piling up.

To be sure, there are a couple of strong sectors in the economy at the moment: capital goods and exports. But I would point out to this committee that, combined, capital goods and exports account for only 23 percent of the gross national product compared with two-thirds for the consumer. As far as capital goods are concerned, while output of these items did go up 6 percent last year in real terms and, according to the latest government survey may well rise 7 percent or more in 1988, I would point out that most of these expenditures are for equipment as opposed to factories, office buildings, warehouses and shopping centers. And the nature of these types of expenditures suggest that they could very easily be postponed and/or canceled. Indeed, the capital spending is considered a lagging indicator. It turns after the economy turns.

As far as exports are concerned, they did jump 15 percent in the first 11 months of 1987, following a slight rise in 1986 and a decline in 1985. But exports are only 11 percent of the gross national product. Most companies simply do not export.

For exports to offset just a flattening in consumer spending—and I maintain consumer spending is not flattening, it is going down—they would have to rise a third faster this year. Now, the question becomes: Is this feasible? I say no, for several reasons.

First of all, who is going to buy all of these exports when growth in Western Europe is relatively sluggish, when Japan doesn't buy very much from us, and when our neighbors to the south are restricting their imports in order to try to turn around their balance of payments and service their debts?

Second, many export industries are now operating at top speed. Paper materials, 99 percent of capacity; paper in general, 94 percent; textiles, 94 percent; iron and steel in the low 90's; aerospace, chemicals, rubber and plastics, all in the high 80's.

Now, these high operating rates have led to another development which is inflation. Notwithstanding the good top-of-the-line figures at the consumer and at the wholesale level, the committee should keep in mind that industrial raw materials prices have climbed 40 percent since August 1986 and that at the producer level, taking out food and energy, prices of intermediate materials have climbed at an accelerating rate for six quarters in a row. I submitted a chart with my prepared statement to illustrate that.

If we don't have a recession this year, these inflation pressures will bubble up and will surface, and instead of rising 4 or 4.5 percent, the Consumer Price Index may go up much faster. Therefore, instead of interest rates declining, interest rates will go up. And instead of the dollar stabilizing in the wake of a declining trade deficit, which normally occurs in a recession, the dollar instead will fall further, and that will lead to additional complications.

One final thought regarding a statement I made at the outset: What can be done about this? I say there are no options. Is the fiscal option available? Can we deliberately widen the budget deficit by spending more and taxing less at a time when most people would want to see the deficit shrink? I say no.

Of course, the Federal Reserve could ease monetary policy, but I don't believe the Fed could do this until it became apparent that we were in a recession, witness the fact that six of the seven positions on the Federal Reserve Board, the seventh one being vacant, where chosen by the administration and it is obviously an election year.

As far as the foreign exchange option, well, we saw what happened a few months ago when the administration tried to push the dollar down, and what happened in the financial markets as a result.

So my conclusion is we are heading for, if not already in a recession. It doesn't look bad by historical standards, but it is a recession nonetheless.

Thank you.

Senator **Sarbanes**. Thank you very much, sir.

[The prepared statement of Mr. Kellner follows:]

PREPARED STATEMENT OF IRWIN L. KELLNER

Besides shattering many dreams and expectations, the stock market's crash has fragmented opinions on the outlook for the U.S. economy and what, if anything, the government should do about it--not to mention on the future course of stock prices, interest rates, and the foreign exchange value of the dollar. For every economist who says that the right policy prescription is for Washington to slash its budget deficit, there's another who warns that administering fiscal restraint at this time would risk a repetition of what happened in the 1930s. On the other hand, while many economists now believe that a recession is likely in 1988, there are more than a few who think that another year of growth is in store, and that the stock market's plunge will not prevent the expansion from continuing. Some applaud the drop in interest rates and the value of the dollar that occurred in the wake of the market's plunge as cushions against a possible recession, while others have become concerned that these developments are harbingers of a higher rate of inflation.

Here are some of the questions that have arisen in the wake of the market's crash:

Did the stock market crash because of Washington's budget deficit?

The reasons for the market's crash are numerous and complex, and, no doubt, concern over the budget deficit was one of them. However, the budget picture was no different on Monday, October 19 than it was on the previous Friday--or, for that matter, all during the month. If anything, Washington's budget deficit in the 12 months ending September 30, 1987, fell to its lowest annual level since 1982. Not only that--both stock prices the economy rose for five years straight, a period that coincided with rising budget deficits!

Then why all this talk about the need for the President and the Congress to cut the budget deficit?

The markets have become concerned about the fact that the United States for a number of years has been consuming more than it has been producing--and, in effect, borrowing from foreigners to finance this excess. According to this line of reasoning, a lower budget deficit will result in less Federal borrowing, which means less reliance on foreign funds. Interest rates can then move lower which will push down the value of the dollar and help reduce our trade deficit which will cushion us against a recession.

Aren't there risks in this strategy?

Sure, there are! For one thing, the deficit could be cut too sharply, resulting in more fiscal restraint than the economy could handle. For another, if the dollar goes down too rapidly, it will discourage even a reduced inflow of foreign funds--not to mention causing withdrawals. More inflation could arise from the lower-valued dollar as imported goods go up in price and domestic manufacturers use this as an opportunity to raise their own selling prices.

By reducing the value of the dollar in foreign exchange markets, isn't Washington, in effect, trying to export our recession to our trading partners, similar to the intent of the Smoot-Hawley Tariff Act of 1930?

First of all, the value of the dollar in foreign exchange markets is determined by more than Washington's wishes, so it is not all that clear that this is deliberate policy on our part. Secondly, if other countries were to respond by taking steps to counter the falling dollar, they would undoubtedly employ, among other strategies, a policy of reducing their interest rates. This would help them by stimulating their economies, while helping us by providing better export markets for us and for our trading partners.

Why all this worry about the strength of the U.S. economy? The latest statistics show that business was expanding at a pretty good clip before the market's plunge.

Storm clouds were gathering on the horizon well before the market's plunge in the form of a rise in the rate of inflation (which cuts into buying power), rising interest rates (which reduces borrowing power), and declines in auto sales and homebuilding, which, as you can imagine, affect a wide variety of industries. Keep in mind also that the stock market crash of October 19 did not represent a sudden reversal in the market's trend; stock prices began to slide nearly two months earlier. Lower stock prices reinforced the downward trend in spending by reducing both the wealth of those who are in the market, and the confidence of the great majority who are not, but who are aware of market trends.

But the surge in stock prices that took place between the beginning of the year and August 25 did not lead to a similar surge in spending, so why should the decline lead to a reduction in spending?

Spending levels might have been even lower if the stock market didn't go up earlier, since personal savings are low and debt usage is high. Many people looked upon the rising value of their stocks as a substitute for savings.

The stock market declined by about the same percentage in 1962, and yet there was no recession for over seven years, so why can't we avoid a recession this time?

There are many differences today compared with a quarter of a century ago. For one thing, the economic recovery then underway was about one year old, meaning that it was strong enough to withstand such a shock. Last year's crash occurred when the expansion was a senior citizen by business cycle standards. Indeed, when October came to an end, the expansion set a new record for peacetime longevity of 59 months--more than twice as long as average. Additionally, the 1962 stock market decline was spread out over a period of months, not concentrated in a few hours as this one was. Thus, it did not make the headlines in the newspapers, the cover stories of national magazines, nor did it receive the television treatment that this decline did.

In the wake of the fall in the value of the dollar, won't the drop in the trade deficit be enough to offset any softness in domestic spending?

One should not expect too much from a declining trade deficit for several reasons: First, our trade position almost always improves when the U.S. economy is in a recession, since reduced consumption levels in general also lead to less imports. Second, exports represent only about 11 percent of gross national product, thus are unlikely to offset massive weaknesses elsewhere. And exports may not rise much this time because our trading partners are either growing slowly themselves, or have restricted the inflow of foreign goods to improve their own balance of payments.

As you know, the stock market crash led to a drop in interest rates. Why wouldn't this tend to prevent a recession--especially considering that bonds, whose prices went up as interest rates fell, are widely held?

Let's take the second part first. Even after the crash, the value of stocks still exceeded the value of bonds. In addition, stocks at mid-November were about 28 percent below their August peaks, while bond prices were up only about eight percent. Households own a greater percentage of stocks outstanding than they do bonds. Thus, the drop in the value of household-owned stocks from their peak in August (over $750 billion) far outweighs the increase in the value of household-owned bonds (about $75 billion) that occurred in the wake of the drop in interest rates beginning October 19. As for the decline in interest rates themselves, while this might make it easier for people to borrow, it is not all that clear that they will want to borrow until they see how their financial situation will be affected by the stock market's crash.

But shouldn't the rise in bond prices, along with the drop in interest rates--not to mention the reduced concern over inflation that has followed in the wake of the market's crash, be considered good news for the economy which should be factored into the outlook?

There is no doubt that these developments are good news. However, past experience has shown that bad news affects the economy before good news does, and that sudden, unexpected events, such as a stock market crash, can have a pretty rapid impact. For example, the drop in oil prices between October 1985 and April 1986 was good news for those who consume energy but bad news for those who produce it--and it was the production side that reacted first by cutting back output, thus holding down overall economic growth. In early 1980, the credit controls imposed by the Federal Reserve were widely misunderstood and led to an immediate downturn in consumer spending, thus plunging the economy into recession. And the oil embargo and the quadrupling of oil prices that took place in October 1973 caused the economy to go into recession barely two months later.

If we do have a recession in 1988, is it conceivable that it could turn into something really bad?

We don't anticipate anything like the economic catastrophe that occurred after the 1929 crash. For one thing, the government is a much bigger factor today, and while many complain about the size of government, it helps stabilize economic activity in times like these. There are income maintenance programs such as Social Security and unemployment insurance that keep consumers' purchasing power from collapsing as it did in the 1930s. There are also many legal and regulatory safeguards that will keep confidence in our financial system, besides the fact that the market today is dominated by big institutional investors who are better able to deal with steep downturns.

After the experience of the 1930s, we learned that the government should rely primarily on fiscal policy to stimulate the economy, since monetary ease, by itself, did not seem to be able to do the job. Yet, this time around, we are faced with the loss of the fiscal tool, since, in today's environment, the government could not deliberately increase its budget deficit. That being the case, is there a risk that we will be unable to come out of recession relatively soon?

Notwithstanding the lessons of the past, today's circumstances dictate a reduction in Washington's budget deficit for reasons noted earlier: Less government borrowing means lower interest rates, lower interest rates will let the dollar drift lower and, that, in turn, will reduce our trade deficit, providing a cushion against a long recession. However, I would add that it is more important for elected officials to develop a credible long-range plan to reduce the deficit than it is to take a big chunk out of the deficit for the current fiscal year.

Is there anything else we should have learned from the market's debacle?

Yes. Panic is a condition experienced by many living creatures. In the case of fishes, birds and animals, panic can start with a sudden disturbance to the environment. A herd of animals may be scared into panic by a shotgun blast; for man, the causes are more complex. We have had many panics in recorded history, the most famous of which, besides the market crash of October 1929, was probably the rapid rise and then plunge of the price of tulip bulbs in Holland during the first third of the seventeenth century.

Looking back over the accounts of the stock market's activity in the months and weeks leading up to the crash, one factor to consider is the role of the media. In the days and weeks prior to the crash, it was not uncommon to find in the financial press a comparison of the pre-crash declines with past history. It seems to me that this focused investors' attention on the relative importance of each major downward move in stock prices until one day, October 19, most came to the same conclusion that the time had come to get out. While this kind of reporting sells newspapers and magazines, unfortunately, it also sells stocks.

The new year finds the business outlook murkier than ever. There is widespread disagreement among economists over where we are today--not to mention regarding where we are heading over the balance of 1988. The range of expectations hasn't been this wide since the end of 1982. Interestingly, the United States economy reached a major turning point at that time (the end of the 1981-82 recession), and it may well be at another critical juncture (the onset of a new recession) today.

One aspect of the business outlook seems to unite the forecasters. This is the feeling that economic growth will slow significantly during 1988--especially in the first half of the year. Some think business will pick up again by the summer, while others feel the economy will be sluggish all year. In my opinion, it would be prudent to expect a recession this year--not a bad one, but clearly a change from the growth environment of the past five years.

As many may already be aware, my forecast of a recession in 1988 is not a recently adopted position. It predates not only the stock market's plunge of last October--but even the slide that began two months earlier, in late August, 1987. Indeed, it goes back to last spring. At that time, we saw a number of signs that in the past have signaled the onset of recession:

- The ongoing expansion had become twice as long as the average peacetime upswing, meaning that it was becoming increasingly susceptible to being derailed;
- Fiscal policy was tightening sharply, since the government's budget deficit was in the process of contracting by one-third;
- Monetary policy had turned restrictive, whether one looked at the money supply, which stopped growing in the spring, or at short-term interest rates, which had actually bottomed out in early October, 1986;
- Long-term rates began shooting up in April, 1987, as

bond buyers became aware that inflation had returned;

- The rise in the rate of inflation was not matched by an equivalent increase in wages and salaries, leading to a drop in people's buying power;
- The combination of reduced buying power and less borrowing power, along with the generally high level of debt and low rate of savings caused consumers to reduce their purchases of autos and housing--two mainstays of our economy;
- Consumer spending in general began to falter, although it was for a while offset by stepped-up production for exports in the wake of the lower-valued dollar.

Because of this last factor, as well as because the stock market had not as yet reached a peak, we believed that the U.S. could avoid a recession in 1987. This appears to have been the case--at least according to preliminary data covering last year's gross national product. However, a closer examination of these statistics, as well as an assessment of the developments that have taken place in the stock market since the August peak suggests that the five-year expansion has just about run out of string.

The signal sent by the stock market's decline should not be ignored. For one thing, while not every decline in stock prices has led to a recession, every recession in the past half century has been preceded by a drop in the stock market. What is more, the only time in this century when a plunge in stock prices the size of the decline between August 25 and October 19, 36 percent, was not followed by a recession was during World War II, when the military buildup kept the economy rising even though the market had fallen by over 40 percent.

Since we are not on a wartime footing today, it seems reasonable to expect the negative impact of the market's fall to spread throughout the economy. Those who own stocks are clearly less wealthy today than they were last August, while they, and the vast majority of people in the U.S. who don't own stocks are surely less confident. The record shows that these developments lead to reduced outlays--which can be seen from the statistics describing consumer spending. Nominal retail sales were about two percent lower in December 1987 than they were back in September 1986, while "real" sales, after adjusting for inflation, were down by more than twice that much. Taking the volatile auto sector out of the picture finds real retail sales down by two percent in the last ten months alone.

On the other hand, production of goods destined for final consumers has actually sped up since summer 1986. While real retail sales have been falling, output has climbed by five percent. Not surprisingly, inventories are beginning to pile up. The Commerce Department's latest tabulation shows a sharp two percent increase in total business inventories in the past two months. And since total business sales have actually fallen during this time, the important ratio of inventories to sales has begun to rise.

As is usually the case, the backup of unsold goods is most prominent at the retail level. Not only has the ratio of inventories to sales adjusted for inflation been climbing sharply since autumn, 1986, but it is higher now than at anytime in the past 20 years--a period spanning four recessions (Chart I)! Merchants must now be in the process of putting on the brakes, because in the past few months, wholesalers' inventories have begun to shoot up, causing their I-S ratios to rise from the 13-year low reached this past summer.

At the manufacturing level, inventories have been rising for about a year, but since sales have gone up even faster, producers' I-S ratios are still falling. However, once wholesalers decide that their stockpiles are too high and begin to reduce their orders, factory sales will lose some of their zip. This will leave producers in particular--and the economy in general--dependent on capital goods and exports for continued growth.

It may not be enough. For one thing, these two sectors combined amount to less than one-quarter of the gross national product. This means that output of capital goods as well as goods destined for export would have to grow even faster than they did in 1987 to offset the ongoing weakness in consumer spending, which accounts for two-thirds of the GNP.

There is no disputing the fact that production of these goods is in a sharp rise. Output of business equipment jumped six percent in 1987, responding to a surge of similar magnitude in business spending for capital goods. And a recent government survey of business spending plans suggests that an even greater rise might be in store for 1988. However, this increase might not come to pass, since most of it represents spending on equipment, which can easily be postponed or even cancelled, should economic conditions warrant it.

Most of the hopes for avoiding a recession are therefore being pinned on exports. After rising only slightly in 1986, exports in the first 11 months of 1987 shot up 15 percent. But to offset just a flattening in consumer spending--which is nearly six times as large--exports would have to rise about one-third faster this year than in 1987. Notwithstanding the fact that the dollar is worth only about half as much today as it was three years ago when compared with the major industrial currencies, it won't be easy for goods producers to achieve this objective.

For one thing, U.S. industry has already shifted a lot of its productive capacity overseas, responding to the earlier strength in the dollar, as well as lower labor and other costs. Whatever comes out of these offshore facilities will not benefit the U.S. economy. For another, while average domestic operating rates remain only around 82 percent, well below peaks reached in earlier cycles, capacity utilization for a number of industries--especially those involved in exporting--are much higher. The paper materials industry, as an example, is operating at 99 percent of capacity, a near record, while other parts of this industry are operating at rates in the low 90s. Textile mills are running at better than 94 percent of capacity, while the iron and steel industry is at 91 percent. Aerospace, chemical materials, rubber and plastics are all at 88 percent.

Besides putting a lid on export growth, these high rates of capacity use have led to significant price pressures. Industrial raw materials have climbed nearly 40 percent from their August, 1986 lows. At the producer, or wholesale level, this surge has translated into an accelerating rise in prices of intermediate goods, excluding food and energy. Last quarter, for the sixth quarter in a row, this index rose at a faster pace than it did in the preceding quarter (Chart II).

With prices of imported goods up at least 10 percent over the past year, the only thing that has prevented these pressures from spilling over into the consumer price index (which still rose four times faster in 1987 than it did in 1986) is the softness in consumer demand. If the economy manages to avoid a recession this year, these bottled-up inflation pressures would seem likely to surface.

Another byproduct of continued economic growth this year would be a renewed decline in the dollar. This is because, instead of shrinking as might be expected in a recession year, imports will remain high, owing to the expansion in buying power that would accompany continued economic growth. The resulting lack of progress in bringing down the trade deficit is what could pressure the dollar. Needless to say, a lower dollar, combined with more inflation, would boost interest rates and send the stock market tumbling once again. The net result: an even worse recession in 1989.

On the other hand, a recession in 1988 would not be without a silver lining. To be sure, there are people who will lose their jobs in a recession, while many businesses will sustain reduced sales and earnings. For these folks, the "benefits" of recession are, understandably, small consolation. Nonetheless, there are some pluses to be aware of, one of which will be a continued bottling up of inflation, since neither business nor labor will be able to raise prices and wages very much when the economy is soft.

As it becomes evident that inflation pressures are being vented--the financial markets will become less tense, and interest rates should begin to fall. This decline should be aided by an easing of Federal Reserve monetary policy, as usually happens once a recession is underway and inflation is perceived as less of a threat. These lower rates need not push the dollar down, since our foreign trade deficit would be improving. Thirty percent of the goods we consume is imported, so it stands to reason that declining demand will result in fewer imports as well.

As the dollar stabilizes, foreign funds will return to the U.S. Declining interest rates should encourage both foreign and domestic funds to flow into the stock market. Once the stock market gets out of its rut and begins to rise on a sustained basis, wealth and confidence will return, laying the groundwork for a new economic recovery.

One final point. Because this is a presidential election year, you might be wondering what, if anything the Administration might do to delay the onset of this recession, since the record shows that bad times in years divisible by four tend to lead to a change in the party occupying the White House. The answer, in my opinion, is not very much.

For one thing, we may already be in a recession, in which case it is obviously too late. But even if we are not, there do not seem to be any options open to the Administration at this point. Fiscal policy is virtually powerless. Any efforts to ward off a recession (by either spending increases or tax reductions) would be difficult to implement, because they would involve deliberately increasing Washington's budget deficit at a time when most everyone wants to see the deficit shrink. Monetary policy might be used--but only after a recession gets underway. It does not seem likely that the financial markets will tolerate lower interest rates and rapid money growth engineered by a central bank, all of whose members have been appointed by the party in the White House, until business conditions require them.

A third policy tool is foreign exchange. Pushing the dollar lower, thereby making exports cheaper and imports even more expensive, could ward off a recession. However, as the Administration learned several months ago, it could also discourage the inflow of foreign funds needed to finance our current deficits. In turn, this could lead to higher--not lower--interest rates by adding to domestic inflation, and, perhaps, to another plunge in stock prices.

CHART 1

RETAIL TRADE REAL INVENTORY-SALES RATIO

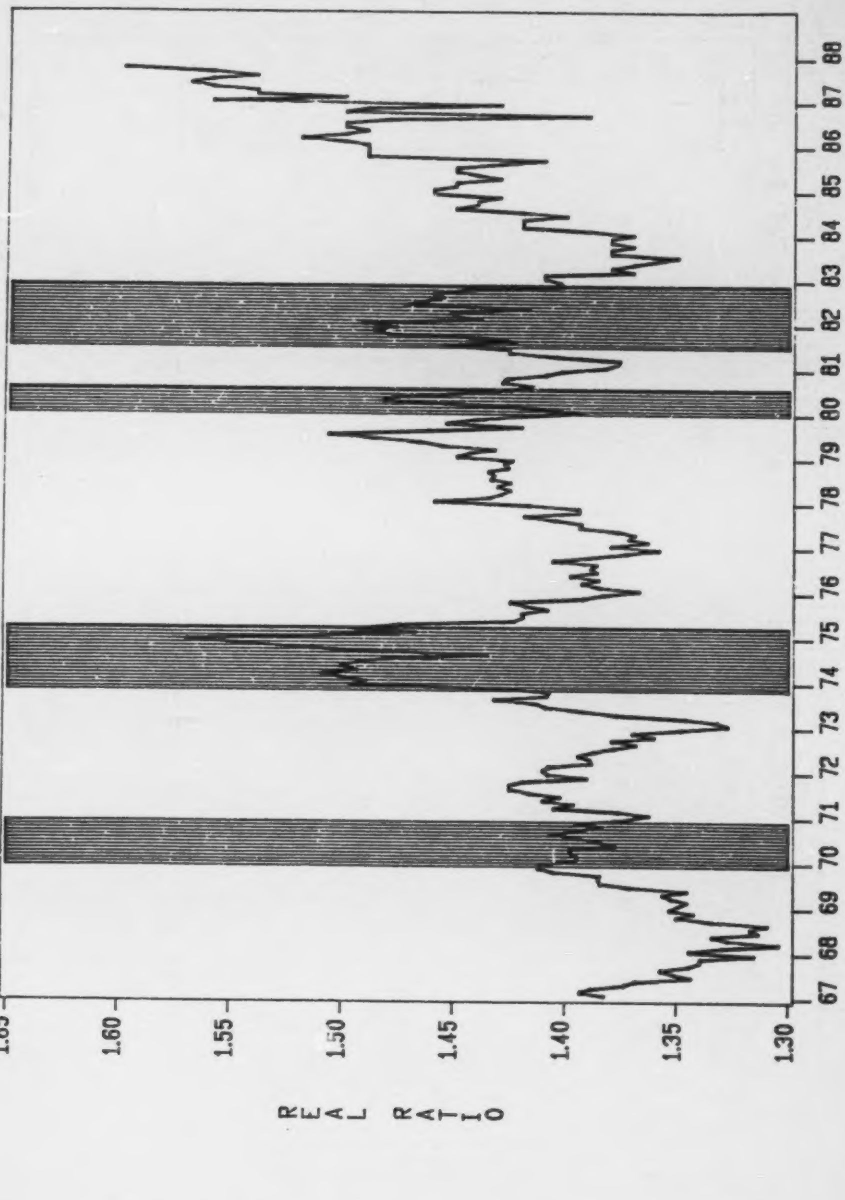
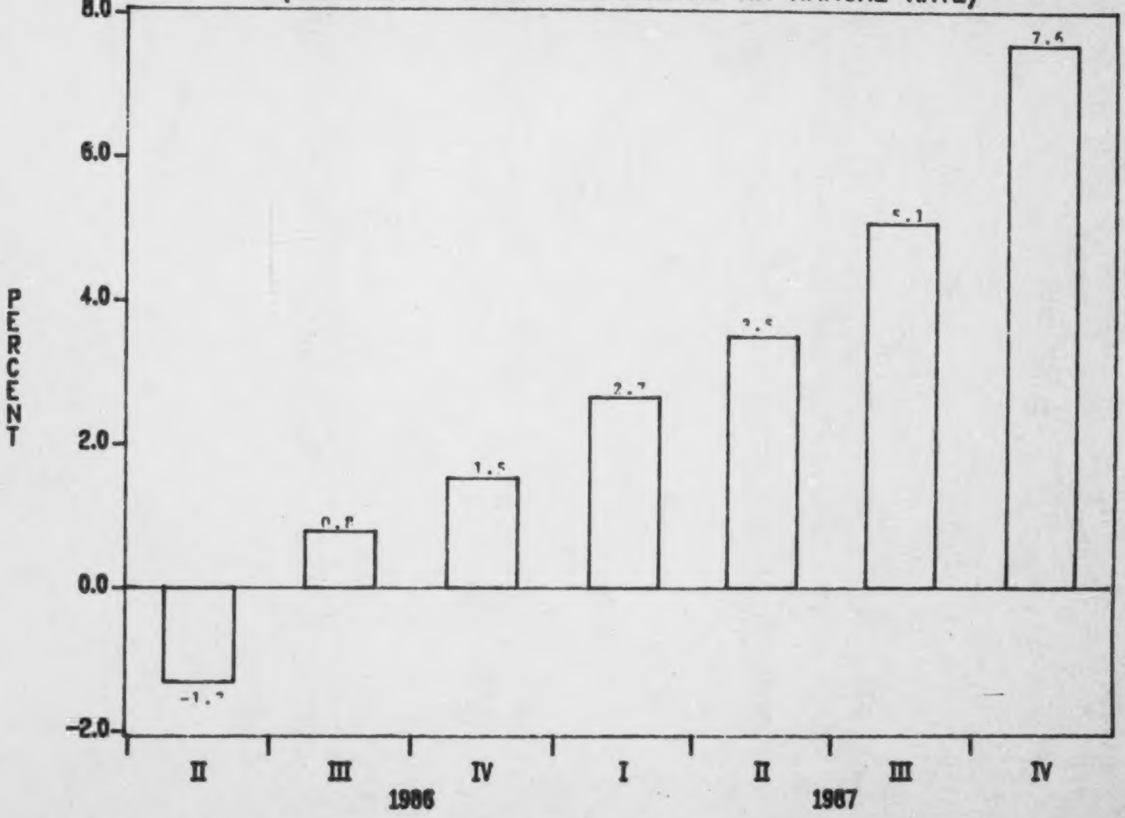


CHART 11

PRODUCER PRICE INDEX - INTERMEDIATE GOODS EXCLUDING FOOD AND ENERGY
(QUARTERLY PERCENT CHANGE AT AN ANNUAL RATE)



Senator **Sarbanes**. Mr. Blinder.

STATEMENT OF ALAN S. BLINDER, PROFESSOR OF ECONOMICS, PRINCETON UNIVERSITY

Mr. **Blinder**. Thank you, Mr. Chairman. I am not sure I will live up to the buildup you gave us all.

Senator **Sarbanes**. In any event, we want to hear you, whether you deserve the buildup or not. [Laughter.]

Mr. **Blinder**. Since several of my colleagues on the panel here do forecasting for a living, I will not attempt that, and will limit my remarks to policy issues and hopefully stay within my 8 minutes.

The first thing to say, I think, in thinking about sensible macroeconomic targets, is that it is now time that policymakers start confronting a question that has been safely left to academics throughout this decade up to now, which is how high is what economists call the natural rate of unemployment? Or, in less gibberish, how low could we push the unemployment rate safely, without starting to encounter serious capacity restraints and inflationary pressures?

That was not a burning issue for policymakers for a long time, with unemployment rates of 8, or even 7, percent. But now, as we approach what may be the full-employment zone, the question is of considerable practical significance.

My view is that we still have some room to grow, that is, to push unemployment down, before we start worrying seriously about rekindling inflation. I want to start by explaining why.

During the late 1970's and early 1980's, expert opinion congealed around the notion that the natural rate of unemployment was something close to 6 percent. Those who dissented from this view mostly favored a higher number, like 6.5, even 7 percent. I never accepted those high numbers, and was a holdout for 5.8 percent, which was picked only because it was the actual unemployment rate of the year 1979, which appeared to be a more or less equilibrium year in terms of labor market slack.

My view since around 1980 has always been that policy should strive to push unemployment down aggressively until we got to around 6 percent, and then should proceed with caution, testing the waters at each step to see just how much further we could go, since nobody really could know that in advance.

For a long time, that made me a hawk in the debate about the natural rate. But, of course, as we sit here today, the actual observed civilian unemployment rate is 5.8 percent, the same rate as in 1979; and the labor market, outside of a few pockets here and there, is showing rather few signs of strain. In fact unit labor costs over the last four quarters rose only 1.6 percent, which is slower than it had risen in the previous several years.

I interpret this as evidence that the natural rate is probably lower than 5.8 percent. Well, how much lower?

A start on an answer can be made if we make the same demographic adjustment that induced economists to increase their estimates of the natural rate in the first place. Just as a higher fraction of teenagers in the labor force raised the natural rate between the late 1950's and the late 1970's, so has a lower fraction of teenagers lowered it since 1979.

If you make this adjustment, it takes about three-tenths or four-tenths of a percentage point off the natural rate, which if it was 5.8 percent in 1979, would bring it down to something in the neighborhood of 5.5 percent today.

And other factors suggest that the natural rate might even be lower than that. Prominently, unemployment benefits are now reaching a smaller and smaller fraction of the unemployed. I think that is regrettable, by the way; but, be that as it may, it is something you would think would lower the natural rate.

In addition, the real minimum wage is now considerably lower than it was at the beginning of this decade. Also, labor unions are weaker and account for a smaller share of total employment.

So I am led to conclude that the economy is not likely to enter the inflationary danger zone until unemployment drops below 5.5 percent. How much below, no one can really say. And I don't purport to know.

However, whether or not we can safely push the unemployment rate down to, say, 5 percent does seem particularly germane at the moment, when most forecasts that I read are predicting a 1 or 2 percent real growth rate for next year and some, as you just heard, are predicting negative growth. Even the 1 or 2 percent real growth rate would imply a slight upward creep of the unemployment rate during the next 12 months.

Now, in the abstract, I would favor something in the range of 2.5 to 3 percent as a real growth target for the U.S. economy for the coming year. That would be enough to keep unemployment on a gradual downward track. Unfortunately, it is not clear that policy can do much to achieve that kind of growth right now if private demand proves inadequate to the task.

Indeed, the more relevant question may be what to do if growth turns out to be much weaker than the consensus forcast, as Mr. Kellner suggested. I believe that a sensible macroeconomic policy for the coming year would reduce the structural deficit somewhat—and I want to stress the word "structural"—though probably less than the new Gramm-Rudman law calls for, and would not worry if a weak economy prevents the actual budget deficit from falling. And, importantly, it would also offset this fiscal contraction by monetary expansion.

Remarkably, it seems to me quite possible that business as usual would produce a policy very much like that. So, while I am accustomed to coming before this committee to urge a change in policy, I will not do that today. I would like to explain my reasons, beginning with fiscal policy.

Normally I would not recommend cutting the structural deficit when the forecast for real growth was only 1 or 2 percent, with a chance of recession. In fact, just the opposite would normally be indicated. But, given the inglorious budget history that has gotten us to the point where we are today, fiscal stimulus does seem out of the question. I think the most we can hope for is a fiscal policy that does not become a destructive force that turns mediocre growth into recession.

Now, if I understand the new Gramm-Rudman law correctly—and I am not 100 percent sure that I do—that is roughly the sort of fiscal policy we might get. The law calls for a $36 billion deficit reduction for fiscal 1989, which, first of all, will be very difficult to achieve, and second, counts asset sales and other meaningless transactions toward the $36 billion total. I take that to mean that the actual economic reduction deficit is likely to be something less than $36 billion.

More importantly, the mandated cut from the current services baseline is going to be $36 billion regardless of whether OMB forecasts a 3-percent growth rate, a 1-percent growth rate, or a negative growth rate. That means that the level of the permissible deficit for fiscal 1989 is going to depend on the baseline forecast. If the forecast is for a weaker economy—and again, I think it is the August forecast that is relevant, but you can correct me if I am wrong—then the permissible deficit under the law will be higher. And that is exactly as it should be.

So for fiscal 1989 only, Gramm-Rudman II will not shortcircuit the economy's automatic stabilizers, which was one of the greatest flaws of Gramm-Rudman I.

Turning to monetary policy, there I can see more running room to combat recession, should the need arise—provided that monetary policy is not hamstrung by international agreements to peg the value of the dollar. We are used to thinking of monetary policy as facing a tradeoff between inflation and unemployment. If it pushes too aggressively, you get inflation; if it pulls back, you get unemployment. Lately, with unemployment and inflation both relatively quiescent, the Federal Reserve has confronted a different dilemma—one that you, Mr. Chairman, mentioned in your opening statement—between internal considerations and the value of the dollar.

Specifically, maintaining moderate growth of aggregate demand while we reduce the deficit calls for monetary ease and low interest rates. But pegging the dollar above its free market level requires tight money and high interest rates. Now, Chairman Greenspan may be a very clever person, but he certainly cannot manage both of those at the same time.

When and if a choice must be made between propping up the dollar and propping up the economy, I don't hesitate before making my recommendation, which is that the Fed should stick with the economy and abandon the dollar, as it did after the October stock market crash; not do the reverse, as it was forced to do by the Louvre agreement.

I would like to conclude by listing briefly some of the reasons for taking this position. First of all, the dollar may not have that much further to fall. While no one knows how much more of a decline awaits us, it will certainly be smaller than what we have already had.

I think it is odd that we harbor dark fears of a "free fall of the dollar" when we have already lived through several free falls with very little trauma.

Second, the yen-dollar exchange rate is on a long-term downward path, no matter what we do, so long as Japanese productivity remains above ours and Japanese inflation below ours. So the only real issue is over timing—whether the dollar should fall more now and less later, or vice versa. If you think of it that way, a quick further drop in the dollar does not sound like such a bad alternative.

Third, and related to this, it isn't a low level of the dollar that holds American interest rates up where they are but, rather, expectations that the dollar will fall further in the future so that foreign investors who invest in dollars will lose money. The more of this eventual drop we get behind us, rather than have in front of us, the lower American interest rates can be.

Fourth, fears that a falling dollar will (*a*) cause inflation and (*b*) pauperize Americans are greatly overblown. Yes, a cheaper dollar is inflationary and does lower the American standard of living. But the magnitudes are quite manageable. The typical American spends 10 to 12 percent of her budget on foreign goods. So, if the dollar falls another 20 percent and, in consequence, prices of foreign goods rise, say, 14 percent, then the cost of living goes up about 1.5 percent. That is not good news, but neither is it a cataclysm.

Finally, we shouldn't forget about the benefits of a cheaper dollar. Those benefits are large, visible, and growing. Our export industries are now expanding at a remarkable pace and many domestic industries that compete heavily with imports are recovering from the devastation they suffered in the early 1980's due to the bloated dollar.

Americans need to remember that export-led growth was a prime ingredient of the German and Japanese postwar economic miracles, and that miracle may now be coming, although in a smaller degree to be sure, to the United States—where today labor costs no more, and in many cases actually less, than in Germany and Japan.

There are those, I know, who argue that a cheap currency is a painful way to compete, for it reduces the purchasing power of the dollars that Americans earn. That is absolutely correct. But those same people should recognize that no method of improving our productivity has the slightest chance of doing for American competitiveness what a 50 percent depreciation of the dollar has already done.

Yes, we should certainly strive for higher productivity, if we could figure out how to do it, for that is the mainstream of higher standards of living. But we must realize as we do this that any attainable productivity improvements will enhance our international competitiveness by, at most, a few percentage points over several years, if we are lucky. The dollar can accomplish that by falling in a single day.

Thank you.

Senator SARBANES. Thank you very much, Mr. Blinder.

[The prepared statement of Mr. Blinder follows:]

PREPARED STATEMENT OF ALAN S. BLINDER

POLICY GUIDELINES FOR 1988

Mr. Chairman, members of the committee, I want to thank you for the opportunity to testify here today. Since several of my colleagues here on the panel do forecasting for a living, I will limit my remarks to policy issues.

The first thing to say is that policymakers must now confront a question that has been "strictly academic" throughout 1980s: How high is what economists call the "natural" rate of unemployment? That is, How low can we push the unemployment rate before we start to encounter serious capacity constraints and inflationary pressures? For years, policymakers could afford to ignore this question because unemployment was so high and spare capacity so ample. But now we are probably approaching the full-employment zone, so the question assumes great practical importance. My own view is that the economy still has some room to grow before worries about rekindling inflation become warranted. Let me explain why.

During the late 1970s and early 1980s, expert opinion congealed around the notion that the natural rate of unemployment was near 6%. Most of the dissenters from this view favored a higher number, like 6.5% or even 7%. I never accepted those high estimates and held out for 5.8% — which was the average unemployment rate achieved in 1979 — as an upper limit. My view since 1980 has been that policy should strive to push unemployment down aggressively until we reached 6% and then proceed cautiously, testing the waters at each step to see if we could safely go further.

For a long time, that made me a hawk in the debate over the natural rate of unemployment. But today we find ourselves back at 5.8% at last, and with a labor market showing few signs of strain. In fact, unit labor costs rose just 1.6% during the most recent four quarters, slower than in the last several years. I interpret this as evidence that the natural rate of unemployment is below 5.8%. How far below?

A start on an answer can be made by making the same demographic adjustment that led economists to increase their estimates of the natural rate in the first place. Just as a higher proportion of teenagers in the labor force raised the natural rate between, say, 1959 and 1979, so has a lower proportion of teenagers reduced it since 1979. This adjustment subtracts about 0.3 or 0.4 percentage point from the natural rate, bringing it down to the 5.5% range. Other factors suggest an even lower natural rate: unemployment benefits are reaching a smaller and smaller fraction of the unemployed, the real minimum wage has fallen considerably during the 1980s, and labor unions are now weaker and account for a smaller share of the labor force. So I am led to conclude that the economy is not likely to enter the inflationary danger zone until unemployment drops below 5.5%. It remains to be seen whether we can safely go further.

But whether or not we can push the unemployment rate to 5% does not seem particularly germane right now — when most forecasters are predicting only

1-2% real growth and a slight upward creep of the unemployment rate during 1988. That is why I say the economy still has room to grow.

In the abstract, I would favor a 2.5% to 3% growth target for the U.S. in 1988 — enough to keep the unemployment rate on a gentle downward track. Unfortunately, it is not clear that policy can do much to achieve that kind of growth right now, should private demand prove inadequate. Indeed, the more relevant question may be what to do if growth turns out to be worse than the forecasts -- for example, if a recession starts in 1988.

I believe that a sensible macroeconomic policy for 1988 would reduce the structural deficit somewhat, though probably less than the new Gramm-Rudman law calls for, and not worry if a weak economy kept the actual deficit from falling. It would also offset the fiscal contraction by monetary expansion. Remarkably, it is quite possible that business as usual will produce a policy more or less like this. So, while I am accustomed to coming before this committee to urge a change in policy, I will not do so today.

Let me explain my reasons, beginning with fiscal policy. Normally, I would not recommend cutting the structural deficit when forecasts are for 1%-2% growth, with a chance of recession. In fact, just the opposite would be indicated. But, given the inglorious budget history that has gotten us to this point, fiscal stimulus seems out of the question. We should be content with a fiscal policy that does not become a destructive force turning subpar growth into recession.

If I understand the new Gramm-Rudman law correctly, that is about what we should get. The law calls for a $36 billion deficit reduction for fiscal 1989, which (a) will be difficult to achieve and (b) allows asset sales and other meaningless actions to count. More important, the mandated cut from the current services baseline is $36 billion regardless of whether OMB forecasts 3% growth, 1% growth, or a recession. Hence, the level of the permissible deficit for fiscal 1989 will depend on the baseline forecast; if the forecast is for a weaker economy, the permissible deficit will be higher — which is just as it should be. Hence, for fiscal 1989 only, Gramm-Rudman II will not short-circuit the economy's automatic stabilizers. That is a big improvement over Gramm-Rudman I.

Monetary policy has more running room to combat recession should the need arise — provided it is not hamstrung by international agreements to peg the value of the dollar. Normally, monetary policy must strike a delicate balance between inflation and unemployment: too much stimulus may bring on inflation; too much restraint may raise unemployment. Lately however, with both unemployment and inflation quiescent, the Federal Reserve has been confronted with a different dilemma: that between domestic considerations and the exchange rate. Specifically, maintaining moderate growth of aggregate demand in the face of deficit reduction calls for monetary ease and low interest rates; but pegging the dollar above its free-market level requires tight money and high interest rates. Chairman Greenspan may be very clever, but he cannot manage both of these at once.

When and if a choice must be made between propping up the dollar and propping up the economy, my recommendation is clear and unhesitating. The Fed should stick with the economy and abandon the dollar, as it did after the stock market crash, not sacrifice the economy to the dollar, as the Louvre agreement forced it to do.

I would like to conclude by listing briefly some of the reasons for taking this position.

First, the dollar may not have that much further to fall. While no one knows how much lower the dollar must go, whatever decline awaits us will almost certainly be smaller than what we have already experienced. It is odd that we harbor dark fears of a "free fall" of the dollar when we have already lived through several free falls with little trauma.

Second, the yen/dollar exchange rate is on a long-term downward path, and will remain so as long as Japanese productivity growth remains higher and Japanese inflation lower than our own. So the only real issue is whether the dollar should fall more now and less later, or vice-versa. Phrased that way, a quick drop of the dollar doesn't sound so bad.

Third, and related to this, it is not a low level of the dollar that holds American interest rates up, but rather expectations that the dollar will fall in the future. The more of the eventual drop we get behind us, the lower our interest rates can be.

Fourth, fears that a falling dollar will (a) cause inflation and (b) pauperize Americans are greatly overblown. Yes, a cheaper dollar is inflationary and does lower the American standard of living. But the magnitudes are quite manageable. For example, the typical American spends 10-12% of her budget on foreign goods. If the dollar falls another 20% and, as a result, prices of foreign goods rise another 14%, the cost of living will rise about 1.5%. That is not good news. But neither is it a cataclysm.

Finally, we should not forget about the benefits of a cheaper dollar — which are large, visible, and growing. Our export industries are now expanding at a remarkable pace, and many domestic industries that compete heavily with imports are recovering from the devastation of the early 1980s. Americans need to remember that export-led growth was a prime ingredient of the German and Japanese postwar economic miracles; and it may now be coming to the United States, where labor today costs no more, and in many cases less, than in Germany and Japan.

There are those, I know, who argue that a cheap currency is a painful way to compete, for it reduces the purchasing power of the dollars Americans earn. They are absolutely right. But they should also recognize that no method of improving our productivity has even a remote chance of doing for American competitiveness what a 50% depreciation of the dollar does. Yes, we should strive for higher productivity, for that is the mainspring of higher standards of living. But we must realize that attainable productivity improvements will enhance our international competitiveness by only a few percentage points over several years — if we are lucky. The dollar can fall that much in a day.

Senator **Sarbanes**. Mr. Sinai.

STATEMENT OF ALLEN SINAI, CHIEF ECONOMIST, THE BOSTON CO. AND ECONOMIC ADVISORS, INC.

Mr. **Sinai**. Thank you, Mr. Chairman.

I look at the cyclical setting as one of winding down of this long expansion. After 61 months of sustained growth, most likely our expansion is winding down. Like it or not, we face a major slowdown or recession. That is increasingly likely. Probably not in 1988, although possible; most likely in 1989, and no later than 1990.

Despite some very good performance parameters for the economy, the best performance parameters for the economy lately since mid-1984, signs of financial trouble, excessive private, public sector and international borrowing, and the reaching of full-employment zones in labor and product markets, have set the stage.

Why is the expansion winding down? Key to the late stages of every business expansion always has been the financial factor, usually the collision of the demand for credit with the supply. Rising inflation, and higher interest rates, monetary tightening by the Federal Reserve, and credit restraints by financial institutions that squeeze spending, first housing, then consumer durables, and finally business capital spending.

This time around, the financial factor has taken on a different form. It is distinctly international in character and it is new in the cyclical process, at least as we see it in this country. Huge global imbalances in the United States and overseas have grown and persisted in recent years in an historical aberration and irregularity never before seen in modern times.

If I can steal 30 seconds from my allotted time and point you to charts 1 to 4 in my prepared statement, you can get some idea of the unusual nature of our budget and merchandise trade deficits. That is the U.S. side of it.

The other side of it overseas are the huge trade surpluses of Germany, Japan, and the NIC's. The global imbalance problem is not just a U.S. problem; it is a worldwide problem.

These huge imbalances, for us big budget deficits and seemingly intractable trade deficits, and for Japan and Germany and increasingly the NIC's, large trade surpluses, have set into motion tremendous gyrations in currency exchange rates, interest rates, and stock prices. When the quantities are so large and sticky—that is, these imbalances—market asset prices must be the mechanism by which the imbalances are corrected in a deregulated financial environment and a global financial environment.

In turn, the financial markets affect the U.S. and world economies perhaps adversely if the dollar falls, interest rates rise, or the stock market declines.

Although the crash of 1987 has added to the risk of trouble, it alone, in my view, should not be enough to plunge the United States into a recession. The stock market decline was too narrow in its impact to do more than just dent the economy. Some 30 to 40 percent of the drop occurred in indirect holdings of stock. Only a little over 20 percent of households directly own stock. Those who do are typically older, in upper income brackets, and have high net worth. Only a relatively small proportion of household net worth resides in stock. Many stockholders lost paper profits and no more.

And if one looks at the situation surrounding our bear markets, there are always other factors besides the stock market decline that cascade to create a recession in the aftermath of the beginning of a bear market in stocks. I don't think it is a stock market decline alone that creates a recession. I think it is problems that are generic to the economy that underlie the behavior of the stock market and then show up in other forms—rising interest rates, rising unemployment, over-exuberant borrowing, boom-bust, that then brings the economy down.

If nothing worse happens than the stock market crash—and I doubt that nothing worse than that crash will occur—but if nothing worse were to happen than the crash, the most probable result for 1988 is growth in the 2 to 2.5 percent range, down from last year's 3.5 percent, but no real disaster. A weaker first half, 1 percent to 2 percent growth, and a stronger second half is part of this scenario.

The profile of sectoral spending should be quite different from previous years. Those sectors previously most strong—consumption and housing—should be much softer. That is actually normal at this stage of the business cycle.

The sectors previously weak—trade, the industrial sector, real net exports, manufacturing, and capital spending—should remain strong. That also is natural for the late stage of a business cycle.

For consumer spending, which you asked about, my expectation is that it will rise only at a 1.5 percent to 2 percent rate. That is relatively low. In fact, it is very low by historical comparison, but with good strength in services and nondurable goods outlays, residential construction should be down. There should be a sharp improvement in real net exports and in exports during 1988, and the manufacturing sector will continue to provide a big lift to the economy.

With utilization rates high, I would expect capital spending to be up by as much as 4 to 5 percent in real terms in 1988, a reasonably decent performance.

For inflation, the role of the dollar is very critical. Inflation in 1988 probably will be more moderate than in 1987, thanks to the round of lower oil prices at the end of 1987 which are going to ripple through our price structure through the first half of this year. Also, a softening of consumer spending makes runaway inflation, 5 percent or 6 percent or more, highly unlikely.

But there is an unusual factor present this time in the inflationary process, that is, the lower dollar, that likely will keep inflation higher than otherwise would occur. The impact of a falling dollar on inflation can be substantial, operating directly on import goods prices, commodity prices, and precious metals prices. The dollar also operates indirectly through an umbrella effect on domestic goods that substitute for imported goods, indirectly through rising business costs, and indirectly through oil prices and energy costs.

In work analyzing the effect of the falling dollar on inflation, I have found that a 10-percent decline in the trade-weighted value of the dollar can bring about eight-tenths of a percentage point rise in the Consumer Price Index 1 year later and 1.5 points after 2 years.

The trade-weighted value of the dollar has gone down 40 percent since the Plaza agreement, and that would suggest 3 to 5 percentage points of higher inflation off the lower dollar.

But we haven't seen that. We haven't seen it because the U.S. economy has been relatively slack in labor and product markets until this time. But if and as the economy reaches full employment—and it is now in the full employment zone—the dollar will be a sleeping tiger for inflation, threatening to spike inflation rates much higher.

For 1988, specifically during the first half of the year, 2 percent inflation is about right. Later on, dollar-related inflation may well push the rate to 4 percent or more. For 1989, in excess of 4 percent, perhaps near 5 percent inflation is a reasonable expectation.

Let me turn just for a moment to the crash effects, because that was in the questions that were asked. A standard analysis of the crash assumes that so big a decline in stock prices, the loss of household net worth, and the psychological damage could produce a recession. That has been a consequence in 8 of 13 bear markets in the postwar period and indeed the kind of decline, 35 percent or so between August and October 19, that virtually all of the time has been followed by recessions in our history.

But I would point you to, in the prepared statement, tables 4 to 6, which provide information on the holdings of stock and the movements of household net worth between the time of August 25 and October 19. Rather than go through it in detail, I think you will find that the data corroborate what I indicated: that the effect of the crash was very localized; the net worth after the crash of households was actually only a little bit worse than before; and those who hold stock are very narrowly based in the economy.

The big risk for 1988 and beyond is the potential for spikes up in interest rates, more financial trouble. And, that has to do with the budget and trade deficits, which remain intractable.

On budget deficits, we would expect them to rise in fiscal year 1988 and 1989. The deficit compromise plan of late last year will only, by our estimates, reduce the budget by bona fide savings of $22.8 billion and then, next year, by $32 billion, rather than the stated amounts.

With the economic outlook, interest rate outlook, unemployment rate, and assumptions on current legislation, as well as the budget compromise plan, deficits in excess of $170 billion and $180 billion can be expected.

Budget deficits and the trade deficits together, even with a slow turnaround in the trade deficit, will continue to throw out a huge supply for dollars in world markets relative to diminishing demands for dollars, tending to drive the dollar down, I think easily to 115 yen on the dollar by midyear, and 1.50 to 1.55 deutsche marks on the dollar. The decline in the dollar, whether it should be fast or slow, controlled or not, does have inflationary impacts, expected inflation impacts, that tend to hold interest rates up. The combination of budget deficits, trade deficits, and the expectations effect are probably worth 2 or 3 points of higher nominal interest rates, and that can be translated to mortgage rates, for example.

The potential of spikes up in rates off these same deficit-debt-dollar-inflation worries, interest rate implications, and what that all means for the stock market, the potential for financial market trouble off of that combination of circumstances, remains very great and will probably characterize 1988.

Is there some way to avoid it? I think there is essentially no way to avoid it. The Federal Reserve is backed into a corner because it has no control over the budget or trade deficits. It can only control monetary policy. It is fighting a losing game in this circumstance. If it eases, the dollar goes down, inflation worries rise, and long-term interest rates will be raised in the market. If it tightens, it risks a recession. All it can do is stand pat and hope that a little bit of luck will bail the Fed out.

What could bail the Federal Reserve out is a staged series of reductions in structural budget deficits over the next few years, not cyclically created high deficits but the structural budget deficits, on the order of $40 billion or so. But that alone cannot be done, anymore. We would have to accompany that by a massive easing of Federal Reserve policy at the same time, and even that combination might not work because the dollar would move lower and our trading partners would have to pitch in with strong stimulative policies at the same time.

It is only this kind of three-pronged policy solution that is the way out of what inevitably is going to be our next recession. It is just a question of picking the time of that recession, and I will confess to you that none of us are close to perfect at getting turning points. That is the toughest part of what any forecaster has to do.

Senator **Sarbanes**. Thank you very much.

[The prepared statement of Mr. Sinai follows:]

PREPARED STATEMENT OF ALLEN SINAI*

Prospects and Policy Options for the U.S. and World Economies in 1988

After sixty-one months of sustained growth, the U.S. business expansion most likely is winding down. Like it or not, a major slowdown or recession is increasingly possible, probably not in 1988, although possible, more likely in 1989, and no later than 1990.

Despite the best performance parameters for the economy since mid-1984, the cyclical setting for the next year or two suggests that the string will run out on the expansion. Signs of financial trouble; excessive private, public sector and international borrowing; the reaching of the full employment zone in labor markets; and capacity limits in some manufacturing industries have set the stage.

The question is less whether a downturn, but when and by how much. Other issues concern consumer behavior, the federal budget, trade deficits and the dollar, and the role of the Federal Reserve over the next year. A final question relates to whether there is still a way through economic policy to achieve a non-inflationary, full employment economy through the rest of the decade.

Briefly summarizing--

o For 1988, the economy can be expected to grow at a 2% to 2-1/2% rate, with no recession although plenty of room for trouble. In the first half, growth should average 1% or so, with a pick-up in the second to a 3%+ path. With two quarters of less-than-potential growth, the first half would classify as a growth recession.

o Sectorally, the industrial sector should be the driving force of growth, with consumption spending and housing activity soft. This would represent a reversal from prior years. Strong exports, continuing the pace of last year; a lessened volume of imports; increased capital spending; and production for inventories at the manufacturing level are expected to prop economic growth. Weak consumption, soft residential construction and weak government spending will be a depressant early. Later on in the year, consumption spending should pick up as auto outlays rise.

o The risk of recession in 1988 is substantial, with odds assessed at 3-in-10 or 4-in-10. Sustained weakness in consumption spending, off the stock market crash or otherwise, could produce excessive inventories relative to sales, which then might require substantial cutbacks in production and employment. So far, whatever weakness exists in consumption and inventories seems to be narrowly focussed in autos and at retail, and not yet suggestive of full-fledged recession.

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- How consumers behave represents a big risk for the economy in 1988. At 1.8% in 1987, consumption spending growth was way down from the boom 4%+ rates of 1983 to 1986. The question this year is if a similar pace can be expected or whether the consumer will fizzle out. If nothing worse occurs than last October's stock market crash, the consumer should keep spending enough to sustain the expansion. The crash itself was too narrowly focussed on a relatively small number of households to be the force that would produce a consumer-led recession.

- A bigger risk than the consumer lies in the possibility of continued declines in the dollar, higher inflation, periodic spikes up on interest rates from whatever the levels, stock market trouble, and then another jolt to the economy. Although the first half pattern of interest rates should be down, this risk is ever-present.

- This year's dilemma for the Federal Reserve is not unlike the ones of previous years. An accommodative stance on policy seems appropriate, especially with early year softness presenting itself in the economy. But, a decided turn toward ease in case of worries over the economy seems unlikely since the by-product could be another sharp downturn in the dollar. Any move toward tightening or firming of interest rates to prop up the dollar risks financial market trouble and a recession. The role of the Fed should be to provide enough money and credit at stable to lower interest rates somewhat in order that the expansion proceed at an acceptable pace of 2% to 3% growth.

- The winding-down of the expansion is principally a consequence of the huge global imbalances--deficits in the United States and surpluses abroad--that have created so much financial instability in previous months. In the absence of policies here and abroad to correct these imbalances, the risk of financial trouble remains great. Also, the pace of the U.S. economy has to slow so that the external deficit can be diminished.

Why Is the Expansion Winding Down?

The main reasons why the expansion is winding down are financial trouble and fading consumer spending.

The processes of cyclical expansion and decline in the postwar period were described and characterized by the late Otto Eckstein

Table 1
Stages of Postwar Business Cycles

Episodes	Recovery/ Expansion	Boom	Precrunch Period/Crunch	Recession	Reliquefication
I	1945:4 to 1948:4	—	—	1948:4 to 1949:4	—
II	1949:4 to 1953:2	1952:4 to 1953:2	—	1953:2 to 1954:2	—
III	1954:2 to 1957:3	1955:1 to 1955:4	1955:4 to 1957:4	1957:3 to 1958:2	1958:1 to 1958:2
IV	1958:2 to 1960:2	—	1959:2 to 1960:2	1960:2 to 1961:1	1960:3 to 1964:3
V	1961:1 to 1969:4	1964:1 to 1966:4	1966:1 to 1966:3	—	1966:4 to 1967:3
	—	—	1969:1 to 1970:1	1969:4 to 1970:4	1970:2 to 1971:2
VI	1970:4 to 1973:4	1972:2 to 1973:4	1973:1 to 1974:3	1973:4 to 1975:1	1974:4 to 1976:2
VII	1975:1 to 1980:1	1978:3 to 1979:1	1978:2 to 1980:1	1980:1 to 1980:3	1980:2 to 1980:3
VIII	1980:3 to 1981:3	—	1981:1 to 1981:4	1981:3 to 1982:4	1982:1 to 1983:2
IX	1982:4-	—	—	—	—

Source: Otto Eckstein and Allen Sinai, "The Mechanisms of the Business Cycle in the Postwar Era," in Robert J. Gordon, Ed., The American Business Cycle: Continuity and Change: National Bureau of Economic Research Studies in Business Cycles, Vol. 25 (Chicago,Illinois: University of Chicago Press, 1986).

and Allen Sinai as similar in substance from episode to episode, but taking on a different form each time (Table 1).[1]

Stages in the business cycle were identified as a) recovery/ expansion; b) boom; c) financial trouble, the crunch; then d) recession.

Currently, the U.S. seems to be somewhere near the boom/financial-trouble stage, with a kind of mini-boom occurring in the manufacturing sector and numerous signs of financial trouble, although not a traditional credit crunch.

Key to the late stages of a business expansion always has been the "financial factor," usually a collision of the demand for credit with the supply, rising inflation and higher interest rates, monetary tightening by the Federal Reserve and credit restraints by financial institutions that squeeze spending--first housing, then consumer durable outlays and finally business capital spending.

Once real financial trouble starts, anywhere from three months (1980 episode, Table 1) to two years (1955-57 and 1978-80 episodes) have elapsed before an economic downturn has begun.

This time around, the financial factor has taken a different form, distinctly international in character, and new in the cyclical process.

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[1] Otto Eckstein and Allen Sinai, "The Mechanisms of the Business Cycle in the Postwar Era," in Robert J. Gordon, ed., The American Business Cycle: Continuity and Change, National Bureau of Economic Research, Chicago, 1986.

Huge global imbalances in the U.S. and abroad have arisen and persisted, in an historical aberration and irregularity never before seen in modern times. These huge internal and external imbalances--for the U.S. continuing large budget deficits and seemingly intractable trade deficits and for Japan, Germany and increasingly the newly industrialized countries (NICs) large trade surpluses--have set into motion tremendous gyrations in currency exchange rates, interest rates and stock prices. With such large and sticky "quantities," financial market asset prices must be the mechanism by which the imbalances are corrected in a deregulated financial environment. In turn, the financial markets affect the U.S. and world economies, perhaps adversely, if the dollar falls, interest rates rise or the stock market declines.

Together, the two U.S. deficits, budget and trade (Chart 1) and the associated debt and interest payments on the outstanding debt generate huge supplies of dollar-denominated assets in world markets where holdings of dollar assets already have accumulated considerable stocks of them.

With considerable losses on dollar investments from a declining U.S. currency, weak fixed income and weak equity markets, the rest-of-the-world demand for dollars has diminished even as the supply has picked up. Portfolios have been shifted from dollars to other assets, precious metals and stronger currencies. This is a key factor in the declines of the dollar over past months.

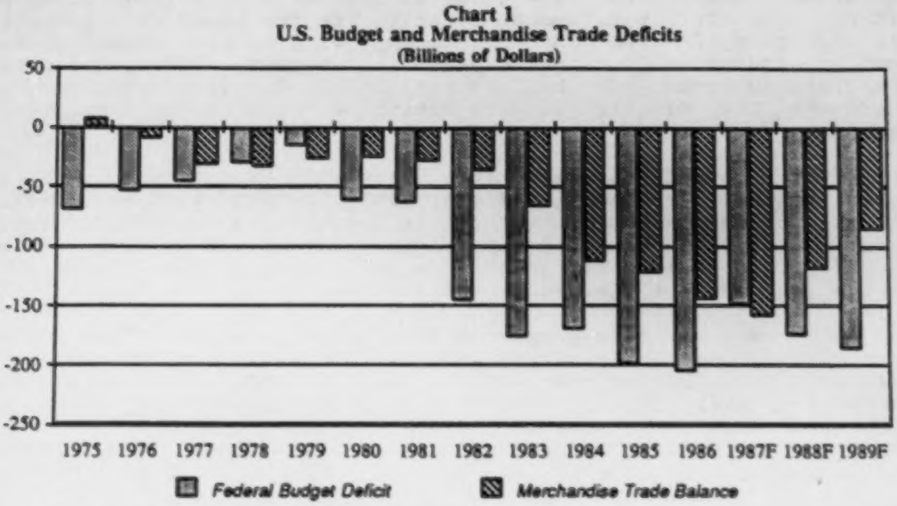
In much of the rest-of-the-world, trade surpluses either have been high or rising (Chart 2). This is particularly so in Japan, whose trade surplus with the world has risen to nearly $90 billion from only $8.6 billion in 1981. In 1987, Japan's trade surplus with the United States approached $60 billion, about the same as in 1986. In the period from 1976 to 1980, this surplus averaged $7.1 billion per annum.

For Germany, its trade surplus with the world is nearing $60 billion, up from $12.2 billion in 1981. With the United States, the surplus is estimated to have reached nearly $13 billion in 1987, up from zero in 1982.

Lately, the trade surpluses of Taiwan, Korea, Hong Kong and Singapore have grown substantially vis-a-vis the United States. The combined surplus of these countries with the United States was $27.8 billion in 1986 and is estimated to be in excess of $30 billion in 1987. In 1982, there was hardly any surplus.

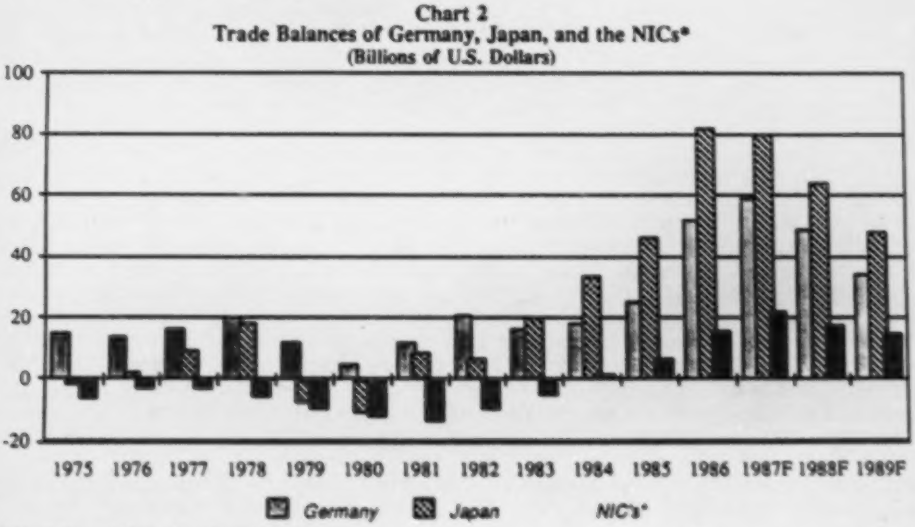
The trade surpluses generate large demands for currencies such as the yen and deutschemark, tending to make their value rise. Against countries where the dollar is not permitted to change much, e.g., Taiwan, Korea and Hong Kong, trade surpluses with the United States can increase more rapidly.

The Global Imbalances: U.S. Deficits . . .



Sources: Bureau of Economic Analysis, Census Bureau, Boston Co. Economic Advisors

. . . and Foreign Trade Surpluses . . .



** South Korea, Taiwan, Hong Kong, and Singapore.*

Source: Boston Co. Economic Advisors

The fiscal policies of the major nations also suggest fewer yen and deutschemarks in world markets, more dollars and thus higher exchange rates for the currencies of Japan and Germany (Chart 3). In Japan, budget deficits are far lower as a percent of GNP than in the United States, with no real expansionary impulse indicated for coming years. In Germany, budget deficits are ranging from -1% to -2% of GNP and, along with Japan, represent one of the lowest ratios of the major industrial nations.

For the United States, the federal budget did show a contractionary impulse in fiscal 1987. But with only small amounts of deficit reduction set in legislation, future deficits likely will rise and an expansionary thrust can be expected in 1988. This could occur in 1989 as well, depending on the budget in the last year of the Reagan Administration.

So long as the trade surpluses and fiscal policies of the major countries change only slowly from current positions, fundamental downward pressure on the dollar and upward pressure on the currencies will result (Chart 4). Currency exchange rates are the mechanism that most reflect global financial markets imbalances; in turn, also impacting on inflation, interest rates and growth of each country.

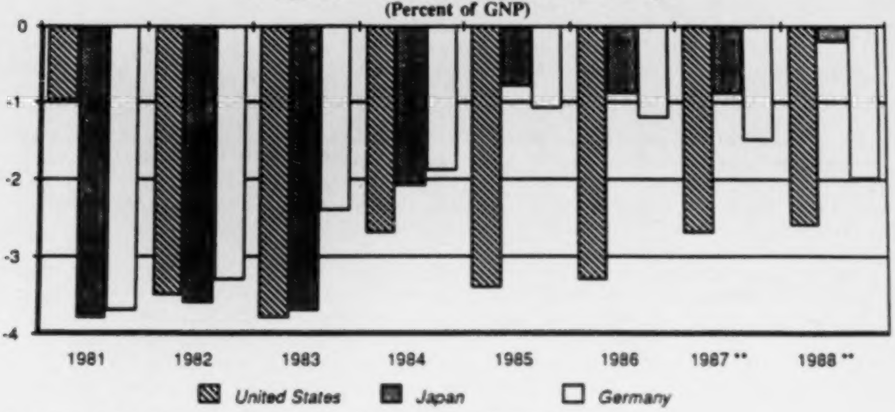
The scenario is by now familiar in the financial markets. Huge budget and trade deficits and debts spew out a large supply of dollars relative to demand, tending to produce a lower dollar. Expected and actual inflation rise. Interest rates are pushed higher or do not decline as much as would otherwise be the case. Higher inflation hurts the dollar. The Federal Reserve either is forced to tighten monetary policy against inflation, not ease, or keep interest rates higher to support the dollar. If the budget and trade deficits do not improve, the process continues.

Eventually, if nothing else intervenes or is done, interest rates must hold to levels high enough to compensate foreign lenders for dollar and interest rate risks and to reduce economic growth at home so that enough savings are released domestically to finance the deficits. The levels of interest rates necessary to do this are uncharted, since the circumstances of the twin deficits and twin debt are without precedent. At some point, interest rates can reach levels that threaten the business expansions of the United States and abroad, where strong currencies might already be limiting industrial economic growth. The result then is lower stock prices in anticipation of a possible recession, as investors discount the risk of a possible downturn. In turn, stock market weakness can slow the economy.

Nowhere has this fundamental problem of the financial markets been more evident than at times of Treasury financing, when a combination of downward pressure on the dollar and potential upward pressure on interest rates has caused Treasury security yields to move sharply higher to attract sufficient funding. The

And Relatively "Loose" U.S. Fiscal Policy and Tightness Abroad . . .

Chart 3
Budget Deficits for U.S., Japan and Germany
(Percent of GNP)

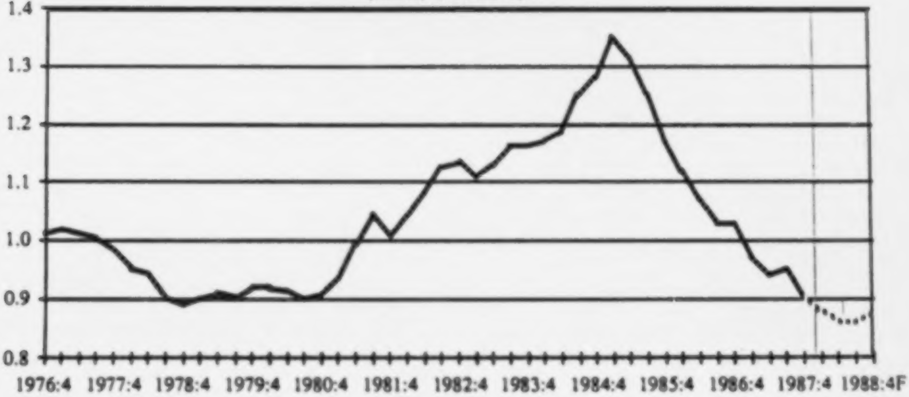


* *On a SNA basis except for the United States, which is on a national income account basis.*
** *OECD Estimates and Forecasts.*

Source: Organization for Economic Cooperation and Development

. . .Are a New Feature of the World Economies, and Ahistorical, Generating A Huge Supply of Dollars Relative to Demand.

Chart 4
Trade-Weighted Exchange Rate for the Dollar
(Index, 1980-82=1)



Sources: Morgan Guaranty Trust Co., Boston Co. Economic Advisors, Inc.

window for trouble has tended to span the two weeks before, the week during and the two weeks after refundings. This scenario has been familiar to fixed income markets since May 1986 and in every Treasury financing since then, most recently in April-May and August-September 1987. Starting in September 1986, the problem spilled over into U.S. equity markets as well, continuing in April-May 1987 with a sizeable 8% correction, and figuring prominently in the stock market correction and crash of October 1987.

Last year's financial difficulties--two and at times three percentage points higher interest rates and the stock market crash in October--signaled the onset of the financial factor in the business expansion that ultimately is a key ingredient for the downturn.

Several paths exist. One is that last year's higher inflation, higher interest rates and stock market crash were the setting for a recession in 1988, probably a relatively mild one that would serve to bring down inflation and interest rates and the trade deficit. A second is a short pause in growth similar to 1962 and 1966, then renewed growth before more inflation, another round of financial trouble, then a downturn. A third is yet another round or two of financial trouble similar to last year, weakened spending in the U.S. and overseas and, with lags, a recession in 1989 or 1990.

1988 Prospects--Expansion Still, But Weaker and With Plenty of Room for Trouble

The paradox is that the latest economic statistics actually have been quite good, despite the stock market crash of last October. Nothing much has happened in the aftermath of the crash that would not have occurred, anyway!

Consumer spending and housing outlays have softened, but were headed on such a course due to weak growth in disposable income and higher interest rates. Orders, production and employment have been strong, particularly in the manufacturing sector; indeed, probably stronger than had been expected before the crash. Even consumer sentiment, depressed for two to six weeks after the crash, rebounded in December, both in the University of Michigan Consumer Sentiment Survey and Conference Board Index.

Inflation settled down in the second half of 1987, helped by lower energy and food prices. And, the civilian unemployment rate, at 5.8% in December, was the lowest since November 1979, and now is in the range of full employment.

Although the "Crash of '87" added to the risks for 1988, it alone should not be enough to plunge the U.S. into a recession. The stock market decline was too narrow in its impact to do more than dent the economy. Some 30% to 40% of the drop occurred in indirect holdings of stock. Only a little over 20% of households directly own stock. Those who do are typically older, in upper-income brackets and have high net worth. Only a relatively small proportion of household net worth resides in stock. Many stockholders lost paper profits and no more.

If there is no worse financial trouble than the crash, the most probable result for 1988 is real economic growth in the 2% to 2-1/2% range, down from last year's 3.5%, but no real disaster. A weaker first half (1% to 2% growth) and stronger second half (3% to 4%) is expected.

The projected growth of real GNP is near 2-1/2%, led by improved foreign trade, rising real net exports, and increased capital spending. The weaker growth this year is a consequence of reduced consumer spending and soft residential construction as households turn more cautious, save more, and borrow less.

The profile of sectoral spending should be quite different from previous years. Those sectors previously the strongest, consumption and housing, should be much softer. The sectors previously weakest--trade, the industrial sector, real net exports, manufacturing and capital spending--should be strong.

Consumer spending is forecast to rise at only a 1-1/2% to 2% rate, although with good strength in services and nondurable goods outlays. Residential construction is forecast to be down 2% to 3%. A sharp improvement for real net exports ($25 billion to $30 billion) and strength in the manufacturing sector should lift the economy. With utilization rates rising, capital spending should pick up nicely, at a 4% to 5% rate. Increased exports and higher capital spending will provide the greatest impetus to growth.

As in 1987, the manufacturing sector, launched onto a self-reinforcing pattern of growth, should lead the economy upward. The lever for manufacturing has been the lower dollar, which finally has made exports competitive. In 1987, nominal U.S. exports rose 29.3%, pretty much across-the-board. In inflation-adjusted or volume terms, the performance has been even better, estimated at well above 30%, and for longer, stretching from 1985:4 to the present. Improved exports boosted business sales, raised orders, necessitating increased production, inventory building, employment, and now additional spending for capital goods. Once the expansion process begins in manufacturing, it can easily last for twelve to eighteen months.

The pattern of activity across regions is likely to reflect the increased trade, stronger manufacturing and capital spending and the weakness in retail trade, finance, insurance, real estate and housing. The Mid-Atlantic states are expected to show a softening of activity; also New England, and the Southeast. The so-called "Rust Belt" will be no more, with the Midwest and basic industrial states to show a good revival. The balancing of regional imbalances in economic activity is a consequence of the economy shifting from a consumer-led expansion to manufacturing-led growth.

Inflation is likely to be more moderate in 1988 than 1987, but still trending higher over a longer time span.

For 1988, especially the first half, recently lower oil and energy prices weak consumer spending make runaway inflation (5%, 6% or more) highly unlikely.

But there is an unusual factor present this time--the lower dollar--that can keep inflation higher than normally would occur. The impact of a falling dollar on inflation can be substantial, operating directly on import goods prices, commodities prices, and precious metals prices. The dollar also operates indirectly through an "umbrella" effect on prices of domestic goods that are substitutes for imported goods, indirectly through business costs, and indirectly through oil prices and energy costs.

In work with the Boston Co. Quarterly Econometric Model of the United States, a 10% decline in the trade-weighted value of the dollar is responsible for a 0.8 percentage point higher CPI-U inflation rate after one year and 1-1/2 percentage points more inflation after two years. With a 40% drop in the dollar since September 1985, these results suggest three to five percentage points higher inflation. So far, slack in the U.S. economy has prevented a bulge from dollar-related inflation. But, if and as the economy reaches full employment, the dollar will be a sleeping tiger for inflation, threatening to spike inflation rates much higher.

For 1988, lower oil and energy prices and price discounting on consumer goods should keep inflation at about 2% in the first half. Later on, inflation rates may well rise to 4% or more.

Demand-pull is not likely to be a major source of inflation pressure this year, except in some areas of manufacturing where high utilization rates and delivery delays may force prices higher. This is already happening in paper, chemicals, textiles and the primary metals.

Wages and unit labor costs should exhibit some catchup in 1988, but not much because of continuing good manufacturing productivity growth of 3% or so. However, wage compensation rises of some 3-1/2% to 4% will put upward pressure on retail price inflation.

For 1989, a 4% to 5% inflation rate is projected as the dollar, costs associated with rising utilization, demand-pull, and wage pressures pick up.

Unemployment rates should remain relatively low, although rising somewhat during the next year. With the unemployment rate in a 5.8% to 6.3% range, the zone of full employment has been reached, although not generally across the country. Nineteen states can be currently classified with full employment, i.e., unemployment rates of 5-1/2% or less. Labor shortages, especially in services, are common in these areas and are a source of services price inflation.

Employment should keep growing nicely, but the unemployment rate probably has bottomed out. Cutbacks in some services activities can be expected, e.g., retail trade and finance. Manufacturing employment should continue to rise, reflecting good exports, relatively strong sales, and a reasonably solid pace of capital goods spending.

Somehow, the unemployment rate moved down from 6.9% to 5.8% over the past year on weaker economic growth than normally would produce such a result. This is a puzzle. Possibly, it is a consequence of higher aftertax incentives to work effort under the new tax system.

Business profits were nothing short of sensational in 1987, but are unlikely to maintain anywhere near a similar pace in 1988. Improved exports, better sales, cost-cutting and numerous efficiencies, restructuring and earnings translation effects from a lower dollar all helped push aftertax corporate profits substantially higher and the S&P 500 earnings per share up about 26%. For 1988, a more modest increase is expected, between 6% and 7% on the S&P 500 earnings per share and similarly for aftertax corporate profits. The worst effects of higher corporate taxes should be over, with lower profits tax rates contributing nicely to cash flow.

Capital spending should be one of the stronger areas of activity in 1988, forecast to be up by 4% to 5% after adjustment for inflation. The weakness in business capital spending in 1986 and 1987 was to a large extent the consequence of the investment boom of 1984 when capital spending rose at near an 18% annual rate, in effect borrowing from the future.

With capacity utilization rates moving higher and the business sector strong, outlays on both equipment and plant should do considerably better.

For the rest-of-the-world economies, modest expansion should continue with somewhat faster growth in Western Europe but weaker growth in the Far East.

In Europe, economic growth should be a little stronger, overall up by 2.6% in 1988 vs. 2.3% in 1987. The economies of the United Kingdom, Germany and France should contribute most to growth in Western Europe. Lower interest rates and tax stimulus in Germany should raise growth in that country, forecast at 2.3% from 1.7% this past year.

In the Far East, some slowdown in growth can be expected with less exports, particularly to the United States. But activity still will be relatively robust. For this area of the world, a 3.8% growth rate is expected in 1988 vs. 4.6% in 1987.

Inflation in Europe is forecast at 3-1/2%, up from 2.7% in 1987. The U.K. and Germany are expected to show the most worsening of inflation. There are downside possibilities here, however, off the strong currencies and effects of lower oil prices.

Unemployment rates throughout the rest-of-the-world will remain high, falling to just under 10%, on average, in Europe, from 10.4% in 1987. Double-digit unemployment rates will remain in Italy and France. Unemployment rates around the world remain extraordinarily high.

Problems and Risks: Plenty of Room for Trouble

There are two big wild cards in the outlook: 1) consumer behavior and 2) the possibility of more financial trouble.

Consumer spending is forecast to remain soft in 1988. A sharp rise in saving and cutbacks in spending could propel the economy into a downturn. Whether and how much consumers react to the stock market crash also is at issue.

Consumer spending and borrowing have been extraordinarily strong for much of the business expansion, rising at 4%+ rates for 1983 to 1986 before showing a 1.8% rise last year. Over the past two years, big-ticket item buying has been sporadic, depending on price discounting to stimulate the consumer. A big unknown is the personal savings rate, which has remained unusually low.

Regardless of the crash, consumer spending would have weakened in the fourth and first quarters. Strong spending on autos last summer borrowed from the future, as dealers cleaned out 1987 models. This has been the pattern of the last few years.

With outlays on big-ticket items essentially satisfied, net worth no longer rising so much, increased caution, and greater tax incentives for saving as against spending, consumer expenditures should be weaker in 1988 and 1989.

But, no collapse in consumer outlays is foreseen. American consumers try to maintain consumption patterns as long as possible, typically until rising unemployment or greatly diminished income forces a retrenchment. With so much consumer spending now on services and some nondurable goods, aggregate consumer spending can be sustained even if big-ticket item outlays stay soft.

With 1988 a year of net tax reductions for households, real disposable income rising by 2-1/2% to 3% and considerable work effort generating more jobs, consumer spending should not drag the economy down into a recession.

Nevertheless, should more financial trouble arise, in the form of rising interest rates, more declines in stock prices or the economy weaken and unemployment rise, consumer spending could tail off enough to produce a downturn. History does not suggest a fizzling-out of household spending without some other causes.

Crash Effects--Little Impact Yet

The "Crash of '87" certainly seems to have ushered in bear stock markets, in the U.S. and abroad.

The standard analysis of the crash assumed that so big a decline in stock prices, the ensuing loss of household net worth, and resulting psychological damage could produce a recession. Eight of thirteen bear markets in the postwar period have been followed by recession.

In analysis done after the crash by the Economics Group of Shearson Lehman Brothers, now at Boston Co. and Economic Advisors, Inc. ("Economic Impacts, Financial Consequences, and Policy Prescriptions from the "Crash of '87," Economic Outlook and Issues, October 29, 1987; also in Challenge, January/February 1988, pp. 11-21), a potential large decline in consumer spending was indicated, with lags of three to five quarters, principally in durable goods outlays. Business capital spending also was projected to be lower. A considerable offset was estimated from reductions in imports and higher real net exports, assuming modest growth continued in the rest-of-the-world.

As a result, if nothing worse than the crash occurred, real economic growth was estimated to decline by one to two percentage points from what otherwise would have been the case, but with no full-fledged recession.

Since the crash, few discernible signs of negative impacts have yet appeared that might not otherwise have occurred.

Upon examination of data relating to households, the potential negative impact of the crash has come increasingly into question. Tables 2 to 6 provide evidence that suggests the crash effects could be very small.

Table 2 shows that the decline in household equity off the crash, from the August 25 peak to October 19, was approximately $1 trillion. But about one-third of the holdings are indirect, residing in pension and mutual funds (Tables 2 and 3). Table 4 indicates that in 1984 only 20% of households directly held stock, a small proportion of families. Table 5 shows some demographic characteristics of stock-holdings: by-and-large, high-income families, of older age, and with high net worth hold stock. Families with net worth of $100,000 or $250,000 and more hold most stock. But, stock-holdings constitute no more than 7.6% of total net worth.

The data thus show that the crash did not have so large a direct effect on net worth as might have been thought. Some 30% to 40% of stock is indirectly held in pension and mutual funds. Stock-holding is narrowly concentrated in higher income, older, and high net worth families. Even for those who hold stock, only a small proportion of net worth was affected.

Table 2
Household Net Worth Breakdown
(Trillions of Dollars)

	End-of-1986	Peak** (8/25/87)	Post-Crash** (10/19/87)	Change
Household Net Worth	13.7	15.0	14.1	-0.9
Cash and Bank Deposits	2.8	3.0	3.0	0.0
Stock (Direct Plus Pension)*	2.3	3.1	2.1	-1.0
Direct Holdings	1.5	2.1	1.4	-0.7
Through Pension Funds	0.6	0.7	0.5	-0.2
Mutual Funds	0.2	0.3	0.2	-0.1
Bonds (Includes Mutual Funds)	1.3	1.3	1.4	0.1
Direct Holdings	0.8	0.8	0.9	0.1
Pension Funds	0.3	0.3	0.3	0.0
Land and Real Estate	3.8	4.1	4.1	0.0
Other**	3.5	3.5	3.5	0.0

* *Includes pension fund holdings of common stock, which represent 35% of total pension fund assets.*

** *Includes equity in non-corporate business and net stock of consumer durables.*

Sources: Federal Reserve Board Flow of Funds, Boston Co. Economic Advisors.

Table 3
Distribution of Equity Holdings Before and After the Crash
(Billions of Dollars)

	End-of-1986	Peak** (8/25/87)	Post-Crash** (10/19/87)	Change
Total	2,948	4,101	2,739	-1,362
Households*	1,642	2,284	1,526	-728
Pension Funds	616	857	572	-285
Nonprofit Institutions*	346	481	321	-160
Foreign Investors	173	241	161	-80
Life Insurance Companies	86	120	80	-40
Other Insurance Companies	68	95	63	-32
Brokers & Dealers	10	14	9	-5
Mutual Savings Banks	7	10	7	-3

* *Mutual fund holdings of equities are allocated to actual investors.*

** *Peak and Post-Crash levels estimated based on change in S&P 500 stock index.*

Sources: Federal Reserve Board Flow of Funds, Boston Co.Economic Advisors

Table 4
Ownership of Common Stock by Income Group, 1984

Annual Household Income	Percent of Households that Own Common Stock	Percent of Total Common Stock Outstanding Held by Income Groups
Less than $11,000	6.4	4.4
$11,000 to $24,000	13.5	8.0
$24,000 to $48,000	26.1	24.3
Greater than $48,000	49.1	63.4
All Households	20.0	100

Source: Census Bureau, P-70 Publication "Household Wealth and Asset Ownership: 1984"

Table 5
Survey of Stock Ownership by Households, 1984

	Equity Holdings as Percent of Net Worth	Percent of Households Owning Stock
Income Group		
Less than $11,000	3.1	6.4
$11,000 to $24,000	2.6	13.5
$24,000 to $48,000	5.2	26.1
Greater than $48,000	11.4	49.2
Overall	6.8	20.0
Age Group		
Less than 35 years	5.2	13.1
35 to 44 years	5.3	22.9
45 to 54 years	4.7	23.1
55 to 64 years	8.9	25.5
65 years & over	8.6	21.1
Net Worth Group		
Negative	—	2.6
Less than $5,000	2.0	3.5
$5,000 to $10,000	2.5	9.9
$10,000 to $25,000	2.0	11.9
$25,000 to $50,000	1.6	16.6
$50,000 to $100,000	2.4	25.2
$100,000 to $250,000	4.5	41.8
$250,000 to $500,000	7.6	54.9

Source: Census Bureau, P-70 Publication "Household Wealth and Asset Ownership: 1984"

Table 6
Aftermath of Stock Market Declines Since 1953

		Change in Key Financial Variables During Six Months After Stock Market Peak			
Months of Dow Jones Bear Market	Percent Decline in Dow Jones	U.S. 30-Year T-Bond Yield (Basis Points)	Federal Funds Rate (Basis Points)	Trade-Weighted Dollar (Percent)	Univ. of Mich. Consumer Confidence (Percent)
1/53 - 9/53	-13.0	27	8	-0.1	NA
4/56 - 10/57	-19.4	12	34	0.2	NA
1/60 - 9/60	-16.7	-51	-76	0.9	NA
12/61 - 6/62	-23.4	-11	35	0.9	-5.1
2/66 - 10/66	-21.3	24	93	0.2	-9.2
12/68 -5/70	-32.1	40	288	0.1	0.2
4/71 - 11/71	-11.8	-8	105	-4.5	-0.2
1/73 - 12/74	-41.9	51	446	-6.1	-11.1
9/76 - 2/78	-23.2	-5	-56	1.0	-1.1
2/80 - 4/80	-10.5	147	-452	-3.3	0.6
4/81 - 8/82	-17.2	167	-64	2.0	-2.9
8/87 - 12/87	-28.1	-8(F)	7(F)	-10.8(F)	-11.6(F)

		Change in Key Real Variables During Twelve Months After Stock Market Peak			
Months of Dow Jones Bear Market	Percent Decline in Dow Jones	Unemployment Rate (Percentage Points)	Real GNP (Percent)	Real Consumer Spending (Percent)	Real Consumer Durables Spending (Percent)
1/53 - 9/53	-13.0	2.0	-1.7	0.9	-2.1
4/56 - 10/57	-19.4	-0.1	1.9	2.2	-0.4
1/60 - 9/60	-16.7	1.4	0.0	1.2	-5.9
12/61 -6/62	-23.4	-0.5	3.1	4.2	11.0
2/66 - 10/66	-21.3	0.0	2.4	2.5	-5.2
12/68 -5/70	-32.1	0.1	1.7	2.9	-0.2
4/71 - 11/71	-11.8	-0.2	4.7	4.7	11.3
1/73 - 12/74	-41.9	0.2	0.5	-0.8	-5.5
9/76 - 2/78	-23.2	-0.8	6.1	4.2	11.2
2/80 - 4/80	-10.5	1.1	0.9	0.3	0.0
4/81 - 8/82	-17.2	2.1	-2.2	1.0	-2.3
8/87 - 12/87	-28.1	+0.4(F)	2.2(F)	1.1(F)	-5.6(F)

F= Forecast.

If an "easy come, easy go" psychology applied--certainly possible given the roller coaster stock market of 1987--then it is reasonable to expect little impact from the crash.

Table 6 shows that more than a decline in the stock market has been necessary for trouble to come later in the economy. Other factors, including higher interest rates, excessive spending and borrowing or rising unemployment have accompanied most of the bear markets in stocks that have led to recession.

Thus, the jury is still out on how much the "Crash of '87" will hurt the economy. Certainly, retail trade and finance will be damaged. Consumers are bound to be more cautious now. But odds on a recession from just the crash remain about 3-in-10 to 4-in-10.

For the Boston Co. forecast the Crash translates into about a one percentage point reduction in real economic growth in 1988 from 1987 and a higher risk of recession, but nothing more.

Fundamental Problem of the Financial Markets

A much bigger risk has to do with the possibility of more financial trouble, similar to 1987.

The generic fundamental problem that caused the Crash remains and is summarized in Charts 5 to 7: the twin deficits, associated debt, and rising interest payments on the debt. Little progress has been made on either deficit since the Crash.

Chart 5 shows the federal budget and trade deficits, separately and summed together, expressed as a percent of GNP.

As a proportion of GNP, the deficits have been rising sharply, but now promise to improve over the next few years.

However, improving deficits, while welcome, will not solve the problem of the financial markets. As Chart 6 shows, the deficits give rise to more debt, both outstanding public debt and indebtedness on international account. The ratio of outstanding federal debt and international debt to GNP is expected to reach a record 57% by 1990, on the current estimates.

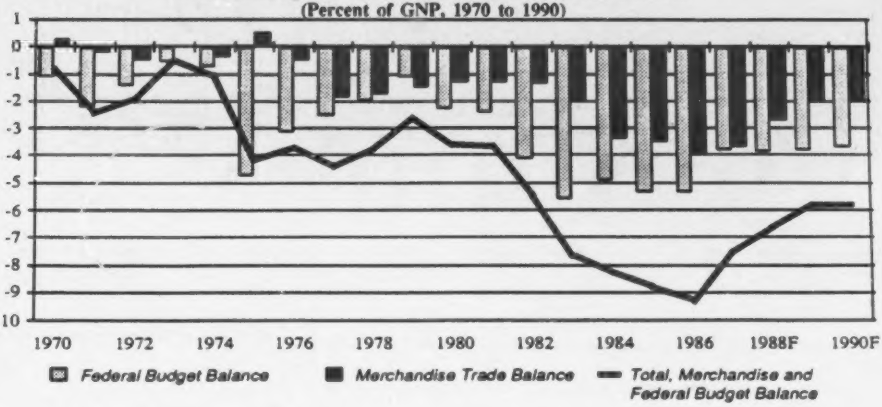
Debt burdens can be more of a problem, whether to individuals or complete economies, than the deficits. So long as deficits exist, debt will accumulate. The burden rises when the accumulation of debt exceeds the growth of national income. This is the case shown in the forecasts of Chart 6.

Yet another problem is increasing interest payments on outstanding debt, both government and international, in future years. The interest claims against debt will keep rising, reaching about 3% of GNP or $159 billion by 1990. The figure exceeds the deficits as a proportion of GNP over most of the postwar period.

"Twin Deficits," the Dollar, Inflation, the Fed, Interest Rates and the Stock Market—Fundamental Problem of the U.S. Financial Markets and Eventually the Economy, A Major Risk and Worry

- **Budget and trade deficit outlook . . . better but still historically high . . .**

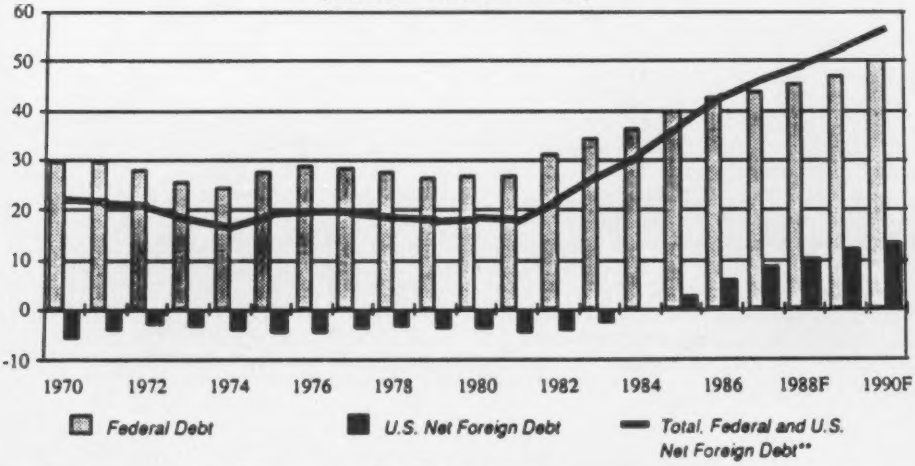
Chart 5
Federal Budget Deficit Plus Merchandise Trade Balance
(Percent of GNP, 1970 to 1990)



Sources: Bureau of Economic Analysis, Boston Co. Economic Advisors

- **U.S. debt and debtor status overseas continuing to grow with the deficits...**

Chart 6
Federal Debt Held by the Public Plus U.S. Net Foreign Debt *
(Percent of GNP, 1970 to 1990)



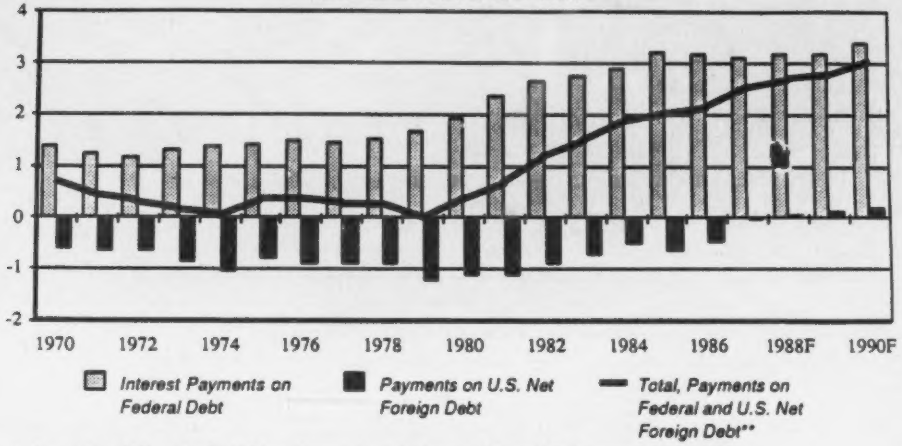
* *U.S. net foreign debt equals foreign assets in the U.S. minus U.S. assets abroad.*

** *To avoid double-counting, foreign holdings of U.S. Treasury debts are subtracted from Federal debt.*

Sources: Bureau of Economic Analysis, U.S. Treasury Department, Boston Co. Economic Advisors

- **Interest charges on debt to keep rising—a claim against growth and the standard-of-living, and a disturbing trend.**

Chart 7
Payments on Federal Debt Plus U.S. Net Foreign Debt *
(Percent of GNP, 1970 to 1990)



* *Payments on U.S. net foreign debt equal payments on foreign assets in the U.S. minus receipts from U.S. assets abroad.*

** *To avoid double-counting, interest payments on foreign holdings of U.S. Treasury debts are subtracted from net interest payments on Federal debt.*

Sources: Bureau of Economic Analysis, U.S. Treasury Department, Boston Co. Economic Advisors

The figures in Charts 5 to 7 reflect the expectations--based on the latest budget and trade deficit information and not far from "consensus"--that drive financial market decisions.

What does all this mean for the financial markets?

The role of the budget and trade deficits in financial markets is principally through expectations--the discounting of future events in the very fast-moving currency, fixed income and equity markets. The "twin deficits"--large budget and huge trade deficits--generate a large supply of U.S. Government and foreign indebtedness and a big supply of dollars relative to demand.

Large deficits--outlays exceeding receipts in the case of the federal budget and imports greater than exports--beget increased debt and require borrowing, for a country just as for an individual or a company. If the borrowing continues, outstanding debt keeps rising and so do interest payments on the debt.

The continuing huge budget and worsening trade deficits generate a large supply of dollar-denominated debt relative to demand, and tend to depreciate the U.S. dollar. A lower dollar raises actual and expected inflation through numerous channels, including rising exports, a stronger industrial sector, higher prices of imported goods and rising commodities prices, including precious metals prices. But, higher actual and expected inflation tend to further depress the dollar. The increased inflation and lower dollar raise market interest rates through inflation expectations premia in long-term interest rates, but also through the demand and supply of funds, taking account of foreign flows-of-funds, especially on longer-term fixed income securities. Foreign lenders demand higher nominal rates of return to compensate for risks of currency loss, principal loss on fixed income or equity securities, and diminished purchasing power in dollars. A lower dollar and the inflation associated with it can push the central bank to tighten or not ease monetary policy in order to prevent unacceptable inflation and to support the dollar.

If the trade and current account deficits do not improve, whether because of lags in adjustment or through structural impediments, then the dollar will keep falling. By midyear or summer, 115 yen to 120 yen can be expected and 1.50 DM to 1.55 DM. Another 5% to 10% drop is possible in 1989.

In such a situation, interest rates must reach levels that compensate lenders for the risks of a falling dollar and potential principal losses from higher interest rates (lower bond prices). As the "Crash of '87" showed, now stock prices are part of the adjustment of the deficits as well, needing to fall low enough to reduce spending in the United States and abroad so that the deficits can continue to be financed, here and overseas.

Unfortunately, the budget and trade deficits do not show signs of any large or significant improvement. The Budget Compromise Plan only dented the deficits, with $22.8 billion of bona fide savings in FY1988 and an estimated $32.1 billion in FY1989 (Appendix Table A.1).

Given the economic assumptions presented in Tables A.2 and A.3, the Budget Compromise Plan, more spending on agriculture than the Administration has indicated, and somewhat higher military spending, the Boston Co. projection of the unified budget deficits is $175.3 billion in FY1988 and $184.5 billion in FY1989 (Appendix Table A.3).

As Appendix Table A.3 indicates, the corresponding structural budget deficits range from $150 billion to $120 billion, and show a stimulative effect in 1988. Thus, the deficit reduction plan of 1987 will not be overly restrictive this year

The outlook for the trade deficit is better, with considerable improvement in 1988. Rising exports and weaker imports as consumer spending remains soft account for the improvement, to -$133.3 billion in 1988 from the estimated -$171.5 billion of 1987. Because of net losses on factor income payments, the current account deficit will not improve so much, rising to -$133.3 billion from -$169.3 billion in 1987.

The status of the twin deficits does not suggest an end to the financial trouble that has cropped up in the currency, interest rate and equity markets during the past two years.

Problems similar to the ones experienced in 1987 could occur at any time, with downward pressure on the dollar, spikes up in interest rates, and another mini-dose of trouble in the stock market. If nothing much is done on the deficits, ultimately financial trouble will be a major source of economy-wide trouble, and a key precipitating factor in the next downturn.

The Dollar--Improvement Only Transitory?

The fundamental pressure on the dollar remains down, a consequence still of huge federal budget and trade deficits, the growing associated debt and the large supply of dollars vis-a-vis the demand for dollars around the world.

The improvement in the trade balance for November, to -$13.2 billion from -$17.6 billion, was suspect, in part seasonal, due to a large $1.4 billion export carryover and also to a reversal of the aberrant October figure.

The nominal merchandise trade deficit, while set to improve in coming months, still will remain high. Even with several months of a -$11 billion to -$13 billion range--the most probable prospect in coming months--the trade and current account and foreign indebtedness can keep rising. It is the debt and its financing that have become more-and-more significant.

Foreign investors have become increasingly leery of taking on dollar assets, particularly U.S. paper, given large losses and uncertainty over the course of the dollar. Where lending is occurring to the United States, it has been more in direct foreign investment where the lenders increasingly insist on a kind of "equity kicker:" ownership of hard physical assets such as real estate, land, portions of businesses, and the building of productive facilities. This reflects a natural tendency for lenders when the borrower is increasingly a credit risk.

The negatives for the dollar include: 1) the "twin deficits," associated debt and expectations of an increasing debtor status for the United States; 2) slow U.S. economic growth; and 3) a steadily rising underlying U.S. inflation rate. The pluses for the dollar should be 1) improving U.S. trade and current account deficits in 1988; 2) the coordinated intervention on the part of the major countries; 3) new commitments to stabilizing the currencies by the major trading nations, including the U.S., Japan and Germany; and 4) softer interest rates abroad.

The ammunition of the major trading partners to support the dollar largely has run out, however. Japan already has provided considerable fiscal stimulus, which showed clearly in the 8.4% annual rate of increase in real GNP during the third quarter. No further fiscal stimulus nor substantial monetary easing can be applied with such a strong performance. Germany has eased monetary policy twice. Although economic growth remains weak, even the monetary growth targets have been relaxed. Tax cuts are in place for 1988. Germany will have to wait awhile before attempting any further stimulus. Western European countries and the U.K. also have eased monetary policy significantly. In the case of the U.K., strong economic growth and potentially higher inflation mean that further easing is difficult.

On further market attacks on the dollar, not much more can be done other than coordinated intervention and the firming of short-term interest rates in the United States. The major trading partners have urged the United States to raise interest rates. If the dollar comes under pressure, such action may be impossible to stave off.

What can be said is that any further dollar decline should be more gentle, with the dollar resting in a range of 120 yen to 130 yen for now, then down to 115 yen later. Against the deutschemark, 1.60 DM to 1.70 DM seems to be the range for now, with the dollar headed to 1.50 DM by the third quarter.

Policy Options and the Federal Reserve

Is there a way to avoid the winding-down of the expansion and a downturn?

To some extent, the stock market crash served to forestall the kind of boom period that typically has preceded a credit crunch and a recession. The crash likely will dent consumer spending to some extent, impose caution on investors, weaken worldwide growth, and limit or delay an acceleration of inflation. Also, monetary policy in the U.S. and abroad has been eased, reducing short-term interest rates which, in turn, can help sustain the expansion for awhile longer. These are the plusses of the crash for the economy.

But any positive effects from the crash have only bought time, if nothing is done in the U.S. and abroad on fundamental policies to correct the huge internal and external imbalances.

After initially pumping in a massive amount of liquidity to the banking system in the aftermath of the crash, the Federal Reserve now finds itself having to somehow unwind the easing without contributing to another big problem in the stock market and a greater risk of recession.

With the dollar still under pressure and potential inflationary impacts possible, the central bank has been pushed into a corner on monetary policy. The initial massive easing off the stock market crash no longer seems sustainable, given a still resilient economy and few effects from the crash. Indeed, the central bank has become more stringent on reserves and monetary growth has weakened considerably.

But even if the dollar comes under more pressure, the central bank will remain adamantly against raising interest rates in its defense, given the risks to the financial markets and the economy of such action. Eventually the declining dollar could produce enough inflation or strength in the economy to force the Fed to tighten. The levers to support the dollar, here and abroad, have pretty much run out, leaving only the Federal Reserve and higher U.S. interest rates as a defense if currency market conditions warrant action.

For the Federal Reserve, the dilemma remains the same as in previous years in the face of such large deficits. Raising interest rates to defend the dollar as a preventative on inflation risks recession. Holding interest rates down to prevent recession risks higher inflation. The Federal Reserve cannot win in this situation.

The Federal Reserve has three choices--

1) do nothing, letting the dollar fall if market forces dictate and taking the inflationary risks of such a result. This seems to be the lesser of the evils, since inflation may not necessarily flare up and the trade deficit could always improve enough to keep the dollar stable. This is the current course.

2) raise short-term interest rates to defend the dollar and take some steam out of strong economic activity in the manufacturing sector, thereby forestalling future inflation problems. The risk here is to the markets and the economy, still generally thought to be fragile and recession-prone. This possibility is hard in an election year, so if it were to occur would have to be earlier rather than later. This is a last resort option.

3) to temporize, letting short-term interest rates firm just a little to help the dollar and buying time without taking a big risk on the markets and the economy. This is the line of defense likely if the dollar comes under severe attack again.

But to sustain noninflationary expansion through 1990, the Federal Reserve can do little. Instead, a radical policy approach would need to be applied.

A curative approach would involve a massive reduction in the budget deficits, up to $50 billion, with further reductions of lesser magnitude in each of the next two years to remove the structural budget deficits; a massive offsetting monetary ease in the U.S.; and stimulative monetary policy abroad to limit any drop in the dollar.

The budget tightening should contain $25 billion of tax increases, but none on personal income tax rates or corporate profits tax rates so as to preserve the incentives of lower rates. A myriad of possibilities exists. Hiking cigarette excise taxes, increasing the tax on distilled spirits, beer and wine, and extending the current telephone tax can raise $7.6 billion in FY1988 and $63.2 billion over the next five years. Energy taxes, which would serve to reduce consumption and conserve on energy use, could be imposed. An increase in the motor fuel tax of 10 cents per gallon would add $6.6 billion in 1989 and $43 billion over the next five years. A broad-based tax on domestic energy consumption would raise $20.1 billion in FY1989. Cutting back on energy consumption would have many positive benefits.

On the expenditure side, a $25 billion reduction should be split approximately $12.5 billion for defense and also for non-defense. A partial freeze on non-defense, non-interest, non-social security outlays could save $11 billion to $12 billion.

But, alone, this reduction in the budget deficit could be devastating to the economy, lopping off anywhere from one to two percentage points of growth in an already weakened economy.

Therefore, in this situation, the Federal Reserve must be asked to offset the budget restraint in order to prevent the economies of the world from toppling into recession. Fiscal policy has a quicker, sharper impact on the economy than monetary policy, thus necessitating an early and offsetting massive ease by the Federal Reserve in order to prevent the $50 billion reduction of the budget deficit from having unwanted economic effects. Such action could well require interest rate declines of two to three percentage points.

A major benefit to the Federal Reserve easing, besides restoring growth and offsetting the negative effects of the budget restraint, would lie in the reduction of net interest outlays in government spending, a bonus in terms of deficit reduction. LDC debt problems could also be easier.

The high premia in nominal interest rates over the years from the twin deficits have been a major source of continuing high budget deficits, as interest outlays in the budget have soared. A two percentage point decline for interest rates over three years can reduce the budget deficit by $5 billion, $17 billion and $25 billion, respectively.

Unfortunately, such a twist in the policy mix still would not be enough. The combination of fiscal restraint and monetary ease would drive interest rates lower in the United States, but the initial weakness in the economy before the Fed ease might prove to be offsetting, along with lower interest rates, could bring large and rapid declines in the dollar, a possibly destabilizing and counterproductive result.

To offset the problems of a weaker dollar, stronger currencies overseas and the slack created by massive cuts in U.S. budget deficits. Japan and Germany would have to provide more stimulus to their economies. This should be done through a combination of lower interest rates and fiscal stimulus in order to offset the potential worldwide slack from the U.S. budget deficit reduction. The lower interest rates overseas would tend to offset some of the negative effects on the dollar from lower interest rates in the United States, working to help the Japanese and German economies as well.

The policy prescription of budget deficit reductions, easier monetary policy and lower interest rates overseas would essentially provide a curative backdrop for growth. Expansion in the U.S. and abroad could be sustained, interest rates be lower, and inflation probably would be no higher than at present.

Computer simulations with the Boston Co. Economic Advisors (BCEA) Quarterly Model of the U.S. Economy show that such an approach can prove beneficial, sacrificing somewhat lower economic growth early but sustaining the expansion for later.

Tables 7 and 8 and Charts 8 to 11 below summarize and compare the effects on the economy, inflation, the unemployment rate and long-term U.S. Government bond rate of a tighter budget and simultaneous easing of monetary policy with other less helpful measures. Stimulative policy abroad, especially through lower interest rates, would show additional growth as a consequence.

Conclusions

For 1988, the best prospect is that the U.S. economy can expand for yet another year, although not without considerable risks. Huge imbalances, internal and external, are calling the tune on a winding down of the current business expansion. The question is when a major slowdown or recession, not whether, as current prospects now stand.

In 1988, real GNP growth is forecast at 2% to 2-1/2%, dented by the crash in the stock market by about one percentage point from what otherwise might have occurred. Consumer spending and housing activity are expected to fade, although household outlays ought not to fizzle out. The manufacturing sector should drive the economy forward through rising exports, increased production, and a significant pickup of business capital spending. With so little accomplished on deficit reduction last year, the Budget Compromise Plan hardly will restrict the economy; indeed, the full employment or structural budget deficit should show a small swing toward fiscal stimulus during the year.

The "twin deficits" and associated debt are the main risk factor, with little prospect of a big improvement. Unified budget deficits are expected to rise in FY1988 and FY1989 to $170 billion and up, but the trade deficit should improve. However, total public debt and U.S. indebtedness to foreigners will continue to accumulate, supplying the global markets with a huge volume of dollars in the context of diminishing demands for dollars by foreign investors.

The result is a fundamental negative backdrop for the dollar and risks to the financial markets that a lower dollar can generate. Though the course of interest rates should be lower during the first half under conditions of weak growth, lower inflation for a time, and accommodative Federal Reserve policy, the risk of interest rate spikes at any time is quite high, especially at times of Treasury financing. Interest rate spikes, should they occur, could well bring them to levels that would cause another dose of stock market trouble, similar to last year.

So long as little or no action is taken on the global imbalances, particularly the budget and trade deficits in the United States, gyrations in financial markets will be considerable. It is this volatility and the possibility of sharp declines in the dollar, much higher interest rates, and more trouble in the stock market that constitute the biggest risk of recession in 1988, approximately 35% to 40%. If nothing is done on the deficits, the risk of recession in 1989 will be even greater, easily 50%.

For the Federal Reserve, the dilemma remains the same as in previous years in the face of such large deficits. Raising interest rates to defend the dollar as a preventative on inflation risks recession. Holding interest rates down to prevent recession risks higher inflation. The Federal Reserve cannot win in this situation. Most likely, the central bank will stand pat as long as possible.

Should the American economy experience a downturn in 1988 or 1989, the policy solution will be the same as the one that could sustain a noninflationary expansion to 1990--elimination of the structural budget deficits in a multi-year program, a simultaneous massive easing of Federal Reserve policy, and more stimulative monetary and fiscal policies abroad.

This "three-legged" approach can work now or even in a recession environment. Sooner or later, the structural budget deficits of the Reagan years will have to be removed. If not, the U.S. economy will not only be threatened with the short-run problems of a cyclical downturn, but with longer-run problems on growth and an increasingly lower standard-of-living for many Americans.

Table 7
"Crash of '87" Impacts: If Nothing Worse or Better Happens*
Simulations with the Boston Co. Economic Advisors Model of the U.S. Economy**
(Differences from Baseline)

	1987:4 to 1988:3	1988:4 to 1989:3	1989:4 to 1990:3
Gross National Product (Bils. $'s)	-72.7	-172.6	-186.9
(Percentage Points)	-1.5	-2.0	-0.1
Real Gross National Product (Bils. 82 $'s)	-50.6	-107.1	-87.7
(Percentage Points)	-1.3	-1.5	0.6
Consumption (Bils. 82 $'s)	-38.8	-91.3	-91.2
(Percentage Points)	-1.9	-2.5	-0.4
Business Fixed Investment (Bils. 82 $'s)	-7.2	-23.1	-19.0
Residential Investment (Bils. 82 $'s)	-19.8	-12.3	-7.7
Change in Inventories (Bils. 82 $'s)	-4.9	-10.5	0.7
Net Exports (Bils. 82 $'s)	19.4	43.1	34.4
Exports (Bils. 82 $'s)	-1.8	3.5	3.0
Imports (Bils. 82 $'s)	-21.1	-39.1	-31.2
Auto Sales (Mils. Units)	-0.346	-0.579	-0.653
Housing Starts (Mils. Units)	-0.209	-0.128	-0.096
Unemployment Rate (Percentage Points)	0.3	0.9	0.7
Employment (Thous. Persons)	-356	-1085	-856
Implicit GNP Price Deflator (Percentage Points)	-0.2	-0.5	-0.7
CPI-U (Percentage Points)	-0.3	-0.3	-0.5
Trade-Weighted Exchange Rate (Percentage Points)	-0.9	-6.5	-1.1
Prime Rate (Basis Points)	-104	-241	-266
Federal Funds Rate (Basis Points)	-130	-280	-291
3-Month Treasury Bill Rate (Basis Points)	-96	-205	-213
30-Year Treasury Bond Rate (Basis Points)	-66	-60	-127
Mortgage Rate, Conventional Fixed Rate (Basis Points)	-70	-69	-124
S&P 500 Earnings Per Share (Percentage Points)	-8.2	-2.3	4.3
Federal Budget Deficit, Unified (Bils. $'s, FY)	-13.6	-27.9	-30.1

Assumptions

1. The 35% decline in the stock market between August 25 and October 19 remains, resulting in a $950 billion drop in household net worth. A small $25 billion improvement in net worth from higher bond prices is a partial offset. A 10% drop in home prices dents net worth by $165 billion.
2. Consumer confidence is shaken, falling 15% initially, then 10% thereafter.
3. Oil and agriculture prices drop from expectations effects, by $1 to $2 a barrel for oil and by 5% for agriculture prices.
4. Because the distribution of net worth losses is assumed to be concentrated at the high end of the income scale, big-ticket items, cars and homes, are cut back sharply.
5. The Fed accommodates the decline in interest rates.
6. About $23 billion in budget deficit reductions, $12 billion in taxes and $13 billion in spending.
7. No other major financial catastrophes occur.
8. The rest-of-the-world continues to grow at a modest pace.

* *With Federal Reserve accommodation of the interest rate declines.*

** *Computer simulation with the Boston Co. Economic Advisors Model of the U.S. Economy. Results of computer simulations with econometric models should be regarded as approximate, reflecting one of a large distribution of outcomes from the simulated changes. The more ahistorical the simulated change, the more uncertain the results.*

Although the Boston Co. Economic Advisors Model incorporates considerable financial detail and expectations effects compared with other models, in this situation the estimates are even more subject to imprecision. The data used to fit the model only reflect the postwar period and not the 1930s.

Table 8
"Crash of '87" Impacts:
If Nothing Worse Happens, the Federal Deficit Is Cut, and the Fed Eases[*]
Simulations with the Boston Co. Economic Advisors Model of the U.S. Economy[**]
(Differences from Baseline)

	1987:4 to 1988:3	1988:4 to 1989:3	1989:4 to 1990:3
Gross National Product (Bils. $'s)	-77.3	-104.9	-64.9
(Percentage Points)	-1.5	-0.3	1.1
Real Gross National Product (Bils. 82 $'s)	-60.7	-63.4	-47.5
(Percentage Points)	-1.3	-0.1	0.7
Consumption (Bils. 82 $'s)	-30.4	-81.2	-86.4
(Percentage Points)	-1.2	-2.1	-0.2
Business Fixed Investment (Bils. 82 $'s)	-6.8	-14.3	-6.3
Residential Investment (Bils. 82 $'s)	-10.8	2.3	6.2
Change in Inventories (Bils. 82 $'s)	-6.8	-3.2	6.4
Net Exports (Bils. 82 $'s)	26.0	83.3	76.5
Exports (Bils. 82 $'s)	-0.5	13.5	12.3
Imports (Bils. 82 $'s)	-25.4	-69.8	-64.2
Auto Sales (Mils. Units)	-.234	-.323	-.275
Housing Starts (Mils. Units)	-.101	.121	.140
Unemployment Rate (Percentage Points)	0.5	0.7	0.3
Employment (Thous. Persons)	-548	-854	-389
Implicit GNP Price Deflator (Percentage Points)	-0.2	-0.2	0.4
CPI-U (Percentage Points)	-0.2	0.2	0.6
Trade-Weighted Exchange Rate (Percentage Points)	-7.6	-12.8	-3.9
Prime Rate (Basis Points)	-354	-481	-501
Federal Funds Rate (Basis Points)	-385	-561	-585
3-Month Treasury Bill Rate (Basis Points)	-320	-434	-450
30-Year Treasury Bond Rate (Basis Points)	-169	-169	-254
Mortgage Rate, Conventional Fixed Rate (Basis Points)	-121	-161	-193
S&P 500 Earnings Per Share (Percentage Points)	-8.5	3.9	6.3
Federal Budget Deficit, Unified (Bils. $'s, FY)	43.7	50.6	69.3

Assumptions

1. The 35% decline in the stock market between August 25 and October 19 remains, resulting in a $950 billion drop in household net worth. A small $25 billion improvement in net worth from higher bond prices is a partial offset. A 10% drop in home prices dents net worth by $165 billion.
2. Consumer confidence is shaken, falling 15% initially, then 10% thereafter.
3. Oil and agriculture prices drop from expectations effects, by $1 to $2 a barrel for oil and by 5% for agriculture prices.
4. Because the distribution of net worth losses is assumed to be concentrated at the high end of the income scale, big-ticket items, cars and homes, are cut back.
5. **The Fed pushes down interest rates, with a 200 basis point drop in the federal funds rate.**
6. **Instead of $23 billion in deficit reductions, $50 billion is cut—$25 billion in higher taxes, $25 billion in spending cuts.**
7. No other major financial catastrophes occur.
8. The rest-of-the-world continues to grow, but does not match U.S. interest rate cuts.

[*] *Federal budget deficit cut by $50 billion per year below baseline, and Federal Reserve aggressively eases.*

[**] *Computer simulation with the Boston Co. Economic Advisors Model of the U.S. Economy. Results of computer simulations with econometric models should be regarded as approximate, reflecting one of a large distribution of outcomes from the simulated changes. The more ahistorical the simulated change, the more uncertain the results.*

Although the Boston Co. Economic Advisors Model incorporates considerable financial detail and expectations effects compared with other models, in this situation the estimates are even more subject to imprecision. The data used to fit the model only reflect the postwar period and not the 1930s.

"Crash of '87" Impacts on Real Growth, Inflation, Unemployment and Interest Rates

Summary Results of Four Simulations
of the Economic Effects of the Stock Market Declines with
the Boston Co. Economic Advisors Model of the U.S. Economy—
1) If Nothing Better or Worse Happens Beyond the Stock Market Shock
2) If the Federal Reserve Aggressively Eases
3) If the Federal Budget Deficit Is Cut More Substantially
4) If the Federal Budget Deficit Is Cut and the Fed Eases

Chart 8
Real GNP
(Percent Change)

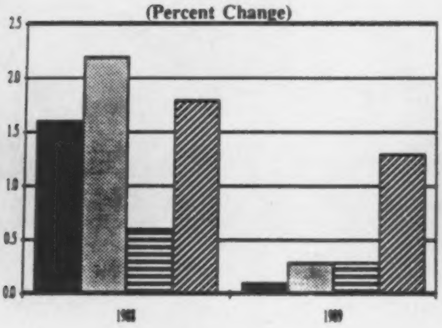


Chart 9
Implicit GNP Price Deflator
(Percent Change)

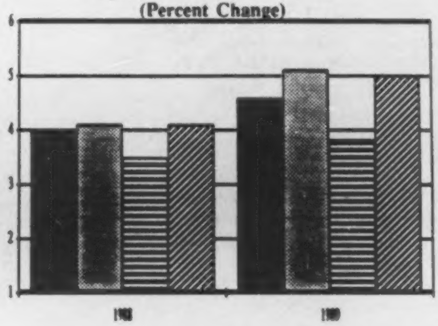


Chart 10
Civilian Unemployment Rate
(Percent)

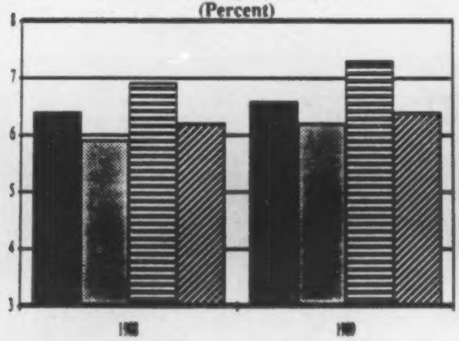
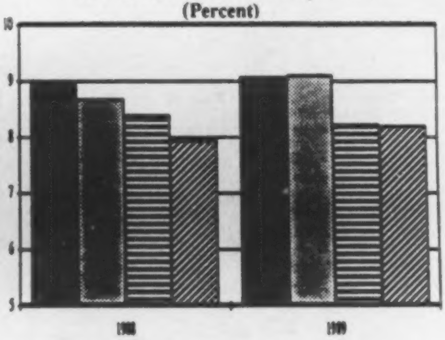


Chart 11
Yield on 30-Year Treasury Bond
(Percent)



■ Nothing Better or Worse Happens

☰ With Deficit Cut

☐ With Fed Easing

▨ With Deficit Cut and Fed Easing

Issues: Budget Deficit—Bipartisan Summit Agreement Only Makes a Dent; Deficits to Remain High.

Table A.1
Compromise Budget Deficit Reduction Plan
(Savings from Current Services Baseline, Billions of Dollars)

Item	FY1988	FY1989
Revenue Increases:		
Tax receipts	9.1	14.1
User fees	0.7	0.4
IRS enforcement	1.6	2.9
Subtotal, Revenues	11.4	17.3
Outlay Reductions:		
Defense	5.1	8.2
Nondefense discretionary (1)	2.6	3.4
Entitlement programs (2)	4.1	6.0
Federal employee pay reforms	0.0	2.4
Subtotal, Outlays	11.7	20.0
Other:		
PBGC premiums, VA housing loan fees	1.4	1.6
REA Loan Asset Sales	7.7	3.5
Debt service	1.2	3.5
Subtotal, Other	10.3	8.6
Stated Deficit Reduction:	**33.4**	**45.9**

Item	FY1988	FY1989
Adjustments of Boston Co. Economic Advisors:		
One-Time Savings		
Loan Asset Sales	-7.7	-3.5
Overstated Savings		
IRS enforcement (Half)	-0.8	-1.5
Debt service (Half)	-0.6	-1.8
Other outlay reductions	-1.5	-7.0
Subtotal, Adjustments	-7.4	-13.8
Actual Deficit Reduction:	**22.8**	**32.1**

(1) Programs that require annual appropriations.

(2) Programs such as social security and Medicare whose outlays are determined by program rules governing eligibility, not annual appropriations.

Sources: *Congressional Fact Sheet, November 20, 1987; Boston Co. Economic Advisors*

Table A.2
Deficits Under Alternative Assumptions
(Billions of Dollars, Fiscal Years)

		1987	1988	1989	1990
Current Services:					
High Growth, Pre-Crash		148	184	189	215
Low Growth, Post-Crash		148	198	217	243
Differences		NA	14	28	28
Receipts		NA	13	32	36
Outlays:		NA	1	-4	-8
Interest		NA	-1	-2	-6
Transfers		NA	2	-2	-2
Bona Fide Reductions—Compromise Plan		NA	23	32	—
Baseline Deficit:	Pre-Crash	148	161	157	—
	Post-Crash	148	175	185	—
Economic Assumptions:					
Real GNP Growth (%)	Pre-Crash	2.4	2.9	1.4	1.2
	Post-Crash	2.5	2.9	1.7	1.1
GNP Deflator (% Chg.)	Pre-Crash	2.7	4.4	5.0	4.7
	Post-Crash	2.7	3.0	4.1	4.4
3-Month Treasury Bill (%)	Pre-Crash	5.6	7.0	7.4	7.1
	Post-Crash	5.6	5.8	6.3	5.9
10-Year Treasury Bond (%)	Pre-Crash	7.9	9.2	9.4	9.1
	Post-Crash	7.9	8.6	8.9	8.3
Unemployment Rate (%)	Pre-Crash	6.4	5.6	5.7	6.0
	Post-Crash	6.4	6.0	6.4	6.8

Sources: Congressional Fact Sheet, November 20, 1987; Boston Co. Economic Advisors

Still High Unified and Structural Budget Deficits

Table A.3
Budget Summary Post-Budget Compromise Plan—Boston Co. Economic Advisors
(Billions of Dollars, Fiscal Years)

	1986	1987	1988	1989	1990
Budget Proposals					
Receipts	769.1	854.1	896.0	950.0	1018.0
Outlays	989.8	1002.1	1071.3	1135.4	1216.0
Nondefense	716.4	720.1	785.0	838.2	908.0
Defense	273.4	282.0	286.0	296.8	308.0
Appropriations	286.8	293.0	297.0	307.8	320.0
Deficit	220.7	148.0	175.3	185.4	198.0
Percent of GNP	5.3	3.4	3.8	3.8	3.9
Structural Budget Deficit	194.5	146.0	150.0	126.0	121.0
Percent of GNP	4.6	3.3	3.2	2.6	2.4
Treasury Financing					
Deficit	220.7	148.0	175.3	185.4	198.0
Cash Adjustments and Other Means of Finance	15.6	2.1	1.0	1.0	1.0
Total Treasury Financing	236.2	150.1	176.0	186.0	199.0
Debt Held by the Public (End of Year)	1746.1	1896.2	2072.2	2258.2	2457.2
Percent of GNP	41.7	43.0	44.5	46.6	47.9
Net Interest Cost	135.3	138.5	150.0	160.0	175.0
Percent of GNP	3.2	3.1	3.2	3.3	3.4
Current Services					
Receipts	—	—	886.0	935.0	998.0
Outlays	—	—	1084.0	1152.0	1241.0
Nondefense			793.0	847.0	923.0
Defense	—	—	291.0	305.0	318.0
Appropriations	—	—	302.0	316.0	330.0
Deficit	—	—	198.0	217.0	243.0
Percent of GNP	—	—	4.3	4.5	4.7
Structural Budget Deficit	194.5	146.0	173.0	158.0	166.0
Percent of GNP	4.6	3.3	3.7	3.3	3.2
	1986	1987	1988	1989	1990
Economic Assumptions (Calendar Years, Except Where Noted)					
Real GNP (% Chg. 4th Qtr./4th Qtr.)	2.2	3.8	2.3	0.7	0.6
GNP Deflator (% Chg. 4th Qtr./4th Qtr.)	2.2	3.3	3.5	4.4	3.0
Real GNP (% Chg.)	2.9	2.9	2.5	1.3	0.3
GNP Deflator (% Chg.)	2.6	3.0	3.0	4.3	3.3
Unemployment Rate (%)	7.0	6.2	6.1	6.5	6.8
91-Day Treasury Bill Rate (%)	6.0	5.8	5.8	6.3	5.5
10-Year Treasury Note (%)	7.7	8.6	8.7	9.2	8.1

Senator **Sarbanes**. We will now hear from Mr. Behravesh. Am I pronouncing that correctly? I wanted to get that straight as one who has to contend with the problem himself. We want to do you justice.

Mr. Behravesh from Wharton Econometric Forecasting Associates. Mr. Behravesh, we are pleased to have you here.

STATEMENT OF NARIMAN BEHRAVESH, SENIOR VICE PRESIDENT, WEFA GROUP

Mr. **Behravesh**. Thank you. I would like to take a slightly broader view than the other speakers and discuss what is happening in the world economy as well.

According to our estimates, the stock market crash will reduce growth in the United States in 1988 from about 3.5 percent to about 2.5 percent. This will reduce world growth from about 3 percent to about 2.5 percent. However, it is going to substantially reduce the growth potential for many of the developing nations, which means that they are going to make very slow progress in reducing their debt burdens.

The good news is it will also reduce inflation in the developed nations, including the United States, from about 4.5 percent to about 4 percent.

In our base case, we are not projecting a recession in 1988, although early this year we are looking at weak growth, which means that the U.S. economy will be vulnerable to another shock. If we make it through the beginning of the year, we do see growth picking up in the second half of 1988.

Looking at the impact of the stock market crash on the consumer, we have estimated that household wealth will be reduced by $500 to $600 billion, which in turn affects consumer spending to the tune of $20 to $25 billion in 1988. If you look at the total amount of consumer spending, which is about $2.5 trillion, consumer spending will be reduced by about 1 percent in 1988 as a result of this event. This is quite a small number.

Of course, the crash has also shaken consumer confidence, although we have seen a rebound in confidence during the past month. Based on the history of consumer confidence surveys, the decline in the aftermath of the crash is not enough to bring on a recession. Nonetheless, consumers still feel quite uncertain about what is happening in the economy. However, they feel good about their own finances and about their own prospects. So there seems to be a split in how consumers feel about themselves versus the economy.

The bottom line is that consumers are going to be fairly cautious this year, but there is not going to be a major entrenchment in consumer spending. The Christmas sales numbers seem to confirm this kind of a trend.

The effect of the crash on business spending is even smaller—about $10 billion in 1982 dollars for 1988. Surveys suggest that about 75 percent of U.S. businesses don't think the crash has affected them. There is a good reason for this. Many U.S. industries are being affected very positively by the export boom that is going on. Many of the manufacturing sectors are operating at or very close to full capacity, so many of these businesses are feeling quite good about what is going on in the economy right now.

Because the proportion of the population in Japan and Europe holding stock is much lower than it is in the United States, the impact of the crash will be correspondingly lower. We project only small decreases in growth in Japan and Germany and the rest of Europe as a result of the stock market crash.

The effect on the developing nations, on the other hand, is quite a bit larger. As the United States and other developed nations slow down, the developing nations' export markets will start to shrink, as will their export earnings. Also, the increases in commodity prices are going to be less as a result of the shock. Here again earnings from that source will be reduced. The only offsetting change is that interest rates will be lower, because of the stock market crash; therefore, debt servicing costs could be correspondingly lower.

As for the dollar, it is clear that the crash had a couple of direct impacts on the foreign exchange markets. It dealt a coup de grace to the Louvre accord, and accelerated the decline in the dollar in the immediate postcrash environment. The lesson to be learned here is that by trying to hold exchange rates fixed through most of 1987, all that happened was the volatility in foreign exchange markets was pushed off into the bond and the stock markets. The stability in the dollar was attained at the expense of higher interest rates in the United States.

Foreign central banks and foreign governments have come to the realization that the dollar has to come down some more. They would like to see the dollar come down in an orderly fashion to allow their businesses, businesses in Japan and Germany, to make the adjustments necessary to this new environment.

To this end we have seen massive intervention by the central banks in the foreign exchange market. We also have seen interest rate reductions in Germany, and a commitment by Prime Minister Takeshita to keep interest rates low in Japan.

I might add, however, that it is as much their own interests as altruism that is motivating this cooperation. Businesses in Europe and Japan are getting hurt by the weakness in the dollar and the strength in their own currencies, so the foreign central banks have their own self-interests in mind when they interfere in foreign exchange markets and lower their interest rates.

The good news, as a number of people here have mentioned, is that as a result of the decline in the dollar U.S. goods are very competitive in world markets. This has brought about a dramatic turnaround in the volume of trade, so much so that we do expect the current account balance in the United States to stabilize and come down a little bit during this year as well.

Of course, the risk here is that inflation could be higher, although we haven't seen much so far.

Just a few words about the dilemma that the Fed is in. I think the Fed should get very high marks for what it did in the postcrash environment. It pumped a lot of liquidity into the banking system, which was the right thing to do, and a few weeks after that, it started to take some of this out, which was also the right thing to do. The Fed is now taking what you might call a "wait and see" attitude. In the short run, it is very concerned about a recession, which is the largest risk in the near term. In the long run, the Fed is concerned about inflation because of the dollar, and because of the capacity pressures that some U.S. industries are experiencing.

The dollar became a lower priority target for the Fed in the wake of the crash, but the priority has moved up now because of the very rapid decline in the dollar that we saw in December. We have seen a greater willingness by the Fed to intervene in the foreign exchange markets in recent weeks.

As we see it, the Fed is very unlikely to tighten this year in any significant way because it is an election year. If inflation does begin to rise this year, or if the dollar does indeed crash, the Fed will come under extreme pressures to raise interest rates. But, as I said, we don't think it is likely to do that in any big way this year. Instead it will wait until after the elections, late this year or next year before it tightens, if it has to.

Finally, a few words on fiscal policy. The recently passed deficit reduction package is really not large enough to have a very big impact on the U.S. economy. By our estimates, only $15 to $20 billion of that package really affect the spending stream in the economy. This amounts to about half a percent of GNP.

Also the package is not really big enough to make a big dent in the deficit. We do see the deficit going back up in this fiscal year to about $170 billion and remaining in that range in fiscal 1989 as well.

In the short run, there probably isn't much that fiscal policy can do to prevent a recession. A couple options that might be considered are postponing some of the spending and tax cuts and easing some of the Gramm-Rudman targets. I want to emphasize that the No. 1 priority and the real challenge for U.S. fiscal policy is a long-run one.

Over the next 10 years, we need to produce more than we consume in order to bring about the adjustment on the external accounts. This means that we must reorient the composition of GNP away from consumption, away from government spending, away from imports, toward investment spending, capital spending, and exports. This is the No. 1 priority as far as U.S. fiscal policy is concerned.

Let me summarize very quickly. As I mentioned, we expect very slow growth this year, but no recession. Early in the year we do expect that the economy will be vulnerable. If there is another shock, then we could get a recession but, barring that, we don't see a recession.

I think the lessons to be learned from this experience are first that we cannot fix exchange rates without making another market more volatile. We saw that volatility with a vengeance in the bond and the stock markets in October.

Also, the second lesson is that, as a nation, we haven't made anywhere near enough progress in reducing our dependence on foreign capital.

Thank you, Mr. Chairman.

Senator **Sarbanes**. Thank you very much.

[The executive summaries attached to Mr. Behravesh's statement follow:]

THE WEFA GROUP

THE WEFA GROUP
WHARTON ECONOMETRIC FORECASTING ASSOCIATES

Executive Summary

December 23, 1987

U.S. Outlook

Lawrence Chimerine, Nariman Behravesh, and John Hagens

The slowdown in consumer spending that began nearly a year ago has continued in recent months — thus far, it does not appear the stock market collapse in October has caused spending to fall more sharply, although the figures after the Christmas season must be watched carefully.

While the outlook for the trade deficit is still not highly favorable, much smaller trade deficits are likely in the next several months than the record October imbalance because of favorable seasonal factors and because inventories of imported goods appear to have risen dramatically during the last six months.

About three-fourths of the 5.4% rise in industrial production during 1987 was accounted for by the sharp increase in exports — the remainder is largely attributable to the upsurge in the production of capital goods and to inventory building. Despite expected continued strong growth in exports and capital goods next year, industrial production growth will fall to approximately 3.3%, reflecting the absence of additional inventory acceleration and a further slowdown in the demand for consumer goods.

In our view, the probability of a recession sometime during the next three years is near 50%. However, because it is less than 50% for any one of those years individually, our standard forecast does not include a recession — rather, it continues to project relatively slow growth (slightly more than 2% on average) for this period. A sharp consumer retrenchment after Christmas and/or a plunge in the dollar during the next several months are the major recession risks for 1988; higher inflation and interest rates during 1988, followed by some tightening by the Fed, could produce a 1989 recession; and a combination of relatively tight monetary and fiscal policies to be put in place by a new administration is the major recession risk for 1990.

The uncertainty about the petroleum sector is greater than it has been since 1986. The inability of OPEC to hold the line on production has resulted in a recent drop in oil prices. Unless OPEC can slow production, prices will drift down through much of 1988, possibly below $14 a barrel.

Major Economic Trends

The widespread interest in the causes and potential effects of the stock market crash, and the highly volatile economic statistics in recent months, have overshadowed the significance of the major trends that are now in place. These trends are consistent with our view that 1987 is essentially a transition year, with the beginning of a major shift in the sectoral mix that is likely to continue for several more years. These trends include the following:

1. After four years of nearly 4.5% average growth in real terms, consumer spending has grown far more slowly during the course of 1987. For example, real consumption expenditures have risen just 1.3% over the 12-month period ending in October — even excluding purchases of motor vehicles and parts, real spending has advanced only 1.7% over this period. This slowdown has taken place on a gradual basis throughout the year — well in advance of the stock market crash — and reflects: **(a)** the stagnation in real wages that has developed in response to continued wage restraint and the acceleration of inflation since mid-1986; **(b)** the extremely high household debt burden, reflecting the enormous increase in consumer borrowing in recent years (the percentage of spending financed by borrowing in 1985 and 1986 was by far the highest in history); **(c)** The record low saving rate of recent years; and **(d)** a winding down of the housing and consumer durables cycle, which is reducing replacement demand for many of those goods. Even though Christmas sales are reported to be mediocre, it does not

appear that consumer spending has thus far fallen significantly below the trend that was previously in place.

2. The decline in the real trade deficit which began in mid-1986 is continuing despite the massive nominal merchandise trade deficit reported for October. Most interestingly, virtually all of the improvement is on the export side — imports have continued to trend upward. This disparity primarily reflects the differences in the types of goods being exported and imported, as well as in the geographic destination or origin. The increase in exports has been primarily in industrial commodities, which have become much more price competitive with the drop in the dollar, and equipment for which the United States has maintained technological leadership or parity with other countries and which competes primarily against European producers. The growth in imports has been confined to petroleum and to capital goods. The improvement in net exports should proceed through 1988. The United States will continue to experience an increased share of worldwide exports, and sluggish consumer spending, coupled with the rapid growth in inventories of imported goods in recent months (which partly accounted for the enormous but unsustainable October trade deficit), will cause a greater slowdown in real imports than has occurred thus far.

3. An upsurge in domestic capital spending has occurred during 1987 — most of this is for machinery and equipment rather than for new facilities. This increase in capital spending primarily reflects: **(a)** increased utilization rates in export-oriented industries, many of which had relatively limited amounts of excess capacity even before the upturn in exports; and **(b)** a significant increase in replacement demand for many capital goods for the first time in many years, reflecting the aging of existing equipment and the increased capability to finance new expenditures because of the dollar-related upturn in manufacturing profits.

4. After almost complete stagnation during the prior three years, industrial production has risen 5.4% over the past 12 months. This mini-boom in manufacturing primarily reflects factors **2.** and **3.** discussed above, as well as a modest increase in inventories of autos and other manufactured goods this year (much of it at the retail level). We estimate that approximately four percentage points of the rise in manufacturing output is export related (exports account for nearly 30% of total U.S. manufacturing output). An additional one percentage point reflects the acceleration in capital spending, while much of the remaining half percentage point is inventory-related.

These shifts represent a major reversal of the patterns which took place in the United States during the prior several years and they will continue during 1988 and beyond. The rise in industrial production will slow down next year because: **(a)** output of defense goods is beginning to rise less rapidly; **(b)** the weakness in domestic consumption of goods, and in construction, will further slow the output of consumer and construction-related manufactured products; and **(c)** the increase in inventories thus far this year will not continue.

When Will The Next Recession Occur?

While a credible scenario for a recession in any of the next three years can be developed, and while the probability of a recession occurring sometime during the period is at least 50%, our baseline forecast does not include a classic recession because we believe that the recession risk for each of the years individually is less than 50%. Thus, we continue to project average growth of only 2% for the next three years, with very little change from the forecast of last month. Nonetheless, the recession scenarios described below should be considered in the planning and policymaking process:

1988 Recession Scenario

While the decline in oil prices, the uptrend in exports, modest tax increases early in the year, and recent declines in long-term interest rates, all suggest that a 1988 recession probably will be avoided, there are two main downside risks which should be watched carefully. **First**, a more sizable consumer retrenchment after the Christmas season, reflecting a delayed reaction to the stock market crash, cannot be ruled out, especially since at least some of the consumer attitude surveys are showing that consumer confidence remains significantly below earlier levels. Layoffs on Wall Street and in other industries may cause a further decline in the willingness and ability of households to spend over and above the forces already in place. **Second**, further declines in the dollar, which would likely be transmitted into sharper increases in import prices than those which have taken place in response to previous dollar declines, coupled with additional upward pressure on long-term interest rates, are possible in the months ahead, especially if foreign lenders begin to doubt the effectiveness of the budget compromise, or if the trade deficit in the next several months remains disappointingly high.

TABLE 1: SELECTED ECONOMIC INDICATORS - QUARTERLY FORECAST

	III 87	IV 87	I 88	II 88	III 88	IV 88	I 89	II 89	III 89	IV 89	1987	1988	1989	1990
ECONOMIC ACTIVITY														
GNP, Bil Current $	4524.0	4587.9	4654.8	4711.0	4778.6	4852.4	4935.2	5007.3	5084.5	5157.6	4483.7	4749.2	5046.2	5348.9
% Change, SAAR	7.3	5.8	6.0	4.9	5.9	6.3	7.0	6.0	6.3	5.9	5.9	5.9	6.3	6.0
% Change, Year Ago	6.1	7.0	6.3	6.0	5.6	5.8	6.0	6.3	6.4	6.3				
GNP, Bil 82 $	3835.9	3864.1	3878.2	3892.9	3912.1	3939.2	3968.5	3988.0	4006.5	4015.2	3816.9	3905.6	3994.5	4058.9
% Change, SAAR	4.3	3.0	1.5	1.5	2.0	2.8	3.0	2.0	1.9	0.9	2.8	2.3	2.3	1.6
% Change, Year Ago	3.2	3.6	2.8	2.6	2.0	1.9	2.3	2.4	2.4	1.9				
Final Sales, Bil 82 $	3811.3	3834.8	3847.2	3867.8	3899.2	3930.7	3954.2	3972.2	3997.6	4013.2	3781.7	3886.2	3984.3	4056.6
% Change, SAAR	6.0	2.5	1.3	2.2	3.3	3.3	2.4	1.8	2.6	1.6	2.2	2.8	2.5	1.8
% Change, Year Ago	2.7	2.4	3.3	3.0	2.3	2.5	2.8	2.7	2.5	2.1				
Indust Production, 1977=100	130.9	132.5	133.2	133.4	134.0	135.1	136.2	137.0	137.6	137.7	129.6	133.9	137.1	138.5
% Change, SAAR	8.6	5.0	2.0	0.7	1.9	3.1	3.3	2.6	1.5	0.4	3.6	3.3	2.4	1.0
% Change, Year Ago	4.9	5.2	4.9	4.0	2.4	1.9	2.3	2.7	2.6	1.9				
Capacity Utilization, Mfg, %	81.4	82.0	82.0	81.7	81.7	81.9	82.0	82.0	81.7	81.3	81.0	81.8	81.7	81.0
Civilian Unemployment Rate, %	6.0	5.9	6.0	6.1	6.1	6.2	6.1	6.1	6.2	6.3	6.2	6.1	6.2	6.6
Auto Sales, Mil	11.5	9.7	9.8	10.1	10.3	10.0	10.4	10.3	10.3	9.8	10.2	10.0	10.2	9.7
Housing Starts, Mil	1.62	1.58	1.59	1.58	1.55	1.51	1.48	1.44	1.44	1.46	1.63	1.56	1.45	1.53
Disposable Income, Bil 82 $	2674.7	2692.2	2719.0	2727.5	2736.0	2754.3	2767.3	2778.8	2790.1	2793.7	2671.7	2734.2	2782.5	2813.6
% Change, SAAR	4.5	2.6	4.0	1.3	1.2	2.7	1.9	1.7	1.6	0.5	1.0	2.3	1.8	1.1
Personal Saving Rate, %	2.8	3.9	4.2	3.9	3.6	3.9	3.7	3.7	3.7	3.6	3.5	3.9	3.7	3.4
FRB Exchange Rate, 1973=100	98.7	91.2	89.8	88.3	86.5	84.5	83.1	82.2	81.7	81.5	96.7	87.3	82.1	83.0
% Change, SAAR	7.2	-27.0	-5.9	-6.8	-7.7	-8.8	-6.7	-4.3	-2.4	-0.9	-13.9	-9.7	-5.9	1.1
% Change, Year Ago	-8.9	-14.8	-10.0	-9.0	-12.3	-7.3	-7.5	-6.9	-5.6	-3.6				
Current Account Bal, Bil $	-173.5	-157.5	-149.2	-144.7	-143.7	-143.0	-147.5	-148.9	-149.5	-146.6	-160.7	-145.2	-148.1	-136.3
After-Tax Corp Profits, Bil $	141.9	133.6	140.5	141.3	147.9	150.5	149.9	148.7	149.3	144.8	134.8	145.1	148.2	142.8
% Change, SAAR	23.9	-21.3	22.4	2.1	20.2	7.2	-1.6	-3.1	1.6	-11.5	6.2	7.6	2.2	-3.6
% Change, Year Ago	9.0	-0.3	8.9	5.0	4.2	12.6	6.7	5.3	0.9	-3.8				
Fed Surplus, NIPA Basis, Bil $	-136.1	-166.2	-171.3	-170.3	-178.8	-191.4	-178.4	-176.4	-184.9	-181.8	-153.0	-178.0	-180.4	-172.0
COMPONENTS OF GNP - BILLIONS OF 1982 DOLLARS, SAAR														
Consumer Expenditures	2520.7	2506.7	2524.3	2540.5	2556.0	2566.7	2584.5	2595.9	2608.1	2613.4	2497.7	2546.9	2600.5	2640.2
% Change, SAAR	5.4	-2.2	2.8	2.6	2.5	1.7	2.8	1.8	1.9	0.8	1.9	2.0	2.1	1.5
Business Fixed Investment	463.8	473.3	478.5	480.4	486.4	494.8	506.4	512.2	516.2	516.4	450.2	485.0	512.8	514.4
% Change, SAAR	25.8	8.4	4.5	1.5	5.1	7.1	9.7	4.7	3.1	0.2	1.5	7.7	5.7	0.3
Residential Fixed Investment	193.5	192.9	190.2	189.1	186.6	185.4	183.3	181.4	179.5	179.8	195.4	187.8	181.0	184.0
% Change, SAAR	-6.5	-1.2	-5.5	-2.3	-5.1	-2.6	-4.4	-4.2	-4.1	0.8	-0.5	-3.9	-3.6	1.7
Government Purchases	771.7	786.5	770.9	767.6	775.9	784.3	779.2	776.5	784.3	789.7	771.1	774.7	782.4	791.5
% Change, SAAR	2.6	7.9	-7.7	-1.7	4.4	4.4	-2.6	-1.4	4.1	2.8	2.2	0.5	1.0	1.2
Change in Business Inventories	24.6	29.3	31.0	25.1	12.9	8.5	14.3	15.7	8.9	1.9	35.1	19.4	10.2	2.3
Net Exports	-138.4	-124.5	-116.8	-109.7	-105.7	-100.5	-99.1	-93.8	-90.5	-86.1	-132.7	-108.2	-92.4	-73.5
Exports	437.1	445.6	451.2	459.6	468.7	477.9	482.9	489.8	495.9	498.9	423.7	464.4	491.9	505.7
% Change, SAAR	23.7	8.0	5.2	7.6	8.2	8.0	4.3	5.8	5.0	2.5	12.3	9.6	5.9	2.8
Imports	575.6	570.1	568.0	569.3	574.4	578.4	582.1	583.6	586.3	584.9	556.5	572.6	584.2	579.2
% Change, SAAR	22.4	-3.8	-1.5	0.9	3.6	2.8	2.6	1.1	1.9	-0.9	6.4	2.9	2.0	-0.9
INFLATION AND DETERMINANTS														
GNP Deflator, % Chg, SAAR	2.8	2.9	4.4	3.3	3.8	3.4	3.9	3.9	4.4	5.0	3.0	3.3	3.9	4.3
% Change, Year Ago	2.8	3.3	3.4	3.3	3.6	3.7	3.6	3.8	3.9	4.3				
CPI, All Urban, % Chg, SAAR	3.9	3.1	3.4	3.8	4.9	4.4	4.7	5.1	5.0	4.9	3.6	3.8	4.7	4.3
% Change, Year Ago	4.2	4.3	3.8	3.5	3.8	4.1	4.4	4.8	4.8	4.9				
PPI, Fin Goods, % Chg, SAAR	2.5	0.8	1.7	2.3	4.1	4.3	4.5	4.8	4.8	4.2	2.1	2.4	4.3	3.4
% Change, Year Ago	3.2	2.7	2.4	1.8	2.2	3.1	3.8	4.4	4.6	4.6				
PPI, Indus Comm, % Chg, SAAR	5.7	2.0	1.2	1.4	3.8	4.0	4.3	4.5	4.8	4.2	2.6	2.6	4.1	3.3
% Change, Year Ago	4.8	4.9	3.3	2.6	2.1	2.6	3.4	4.1	4.4	4.5				
Comp per Hour, % Chg, SAAR	3.7	4.0	4.8	4.0	5.6	4.5	5.0	4.8	5.8	4.9	2.8	4.3	5.0	5.1
Output per Hour, % Chg, SAAR	3.4	1.5	0.8	0.9	1.2	1.8	1.9	1.3	1.1	0.9	0.8	1.4	1.5	1.2
Unit Labor Cost, % Chg, SAAR	0.2	2.5	3.9	3.1	4.4	2.6	3.0	3.5	4.7	4.0	2.0	2.9	3.3	3.9
FINANCIAL MARKETS														
Federal Funds Rate, %	6.8	6.9	6.7	6.9	7.2	7.5	8.1	8.4	8.7	8.4	6.7	7.1	8.4	7.6
T-Bill Rate, 3-Month, %	6.0	6.0	5.8	6.0	6.4	6.7	7.0	7.4	7.9	7.6	5.8	6.2	7.5	6.9
Prime Comm Bank Rate, %	8.4	8.8	8.6	8.3	8.5	8.7	9.2	9.5	10.1	10.0	8.2	8.5	9.7	9.1
Moody AAA Seasoned Bond Rate,%	9.8	10.0	9.8	10.2	10.5	10.8	11.1	11.2	11.0	10.7	9.3	10.3	11.0	9.7
Money Supply (M1), Bil $	750.0	762.3	775.1	788.6	806.2	823.0	835.4	849.0	862.3	876.8	750.1	798.2	855.9	913.5
% Change, SAAR	0.0	6.7	6.9	7.2	9.2	8.6	6.2	6.7	6.4	6.9	11.4	6.4	7.2	6.7
% Change, Year Ago	9.4	6.6	5.0	5.1	7.5	8.0	7.8	7.7	7.0	6.5				
Money Supply (M2), Bil $	2862.2	2909.2	2961.1	3023.7	3093.6	3148.5	3192.8	3237.7	3290.1	3350.7	2839.1	3096.7	3267.8	3527.6
% Change, SAAR	3.1	6.7	7.3	8.7	9.6	7.3	5.7	5.7	6.6	7.6	6.6	6.9	6.9	8.0
% Change, Year Ago	5.4	4.7	4.8	6.4	8.1	8.2	7.8	7.1	6.3	6.4				

TABLE 2: MONTHLY ECONOMIC INDICATORS - SUMMARY

	OCT 86	NOV 86	APR 87	MAY 87	JUN 87	JUL 87	AUG 87	SEP 87	OCT 87	NOV 87	1984	1985	1986
INDUSTRIAL MARKETS													
Indust Production, 1977=100	125.3	125.7	127.4	128.2	129.1	130.6	131.2	130.9	132.0	132.5	121.4	123.7	125.1
% Change	0.6	0.3	0.0	0.6	0.7	1.2	0.5	-0.2	0.8	0.4	11.2	1.9	1.1
% Change Year Ago	1.3	0.7	2.2	3.1	4.0	4.6	5.0	5.1	5.3	5.4			
Capacity Utilization, Mfg, %	79.5	79.6	80.2	80.4	80.8	81.5	81.5	81.3	81.8	82.0	80.5	80.1	79.7
Civilian Unemployment Rate, %	6.9	6.9	6.3	6.3	6.1	6.0	6.0	5.9	6.0	5.9	7.5	7.2	7.0
Empl, Household Survey, Mil	110.2	110.4	111.8	112.4	112.3	112.7	113.1	112.8	113.2	113.5	105.0	107.2	109.6
Change	0.205	0.240	0.467	0.612	-0.190	0.470	0.354	-0.309	0.415	0.313	4.2	2.1	2.4
% Change	0.2	0.2	0.4	0.5	-0.2	0.4	0.3	-0.3	0.4	0.3	4.1	2.0	2.3
Empl, Estab Survey, Mil	100.2	100.4	101.6	101.7	101.8	102.1	102.3	102.4	103.0	103.2	94.5	97.5	99.6
Change	0.170	0.206	0.269	0.110	0.110	0.308	0.149	0.159	0.536	0.274	4.3	3.0	2.1
% Change	0.2	0.2	0.3	0.1	0.1	0.3	0.1	0.2	0.5	0.3	4.8	3.2	2.1
Lead Econ Indicators, 1967=100	181.2	182.7	187.9	188.9	190.8	191.6	192.7	192.7	192.4		165.3	168.6	179.3
% Change	0.7	0.8	0.2	0.5	1.0	0.4	0.6	0.0	-0.2		5.9	2.0	6.3
New Orders, Mfg, Bil $, MR	188.8	191.0	200.6	201.4	205.5	206.1	203.2	206.7	208.9		2280.6	2286.5	2271.9
% Change	-2.2	1.1	0.6	0.4	2.0	0.3	-1.4	1.8	1.1		9.2	0.3	-0.6
Inv Chg, Mfg & Trade, Bil$, MR	1.9	0.6	2.9	5.7	3.1	3.0	0.7	3.9	5.5		52.0	9.4	2.0
Merch Trade Bal, Bil $, NSAMR													
Incl Undoc Exports to Canada			-13.0	-14.0	-15.7	-16.5	-15.7	-14.1	-17.6				
Excl Undoc Exports to Canada	-14.7	-15.4	-13.3	-14.4	-16.3	-17.4	-15.9	-14.1	-18.4		-127.6	-139.7	-166.3
CONSUMER MARKETS													
Disposable Income, Bil 82 $	2652.6	2655.5	2603.1	2674.9	2658.2	2673.1	2675.4	2675.8	2714.2		2469.7	2542.2	2645.1
% Change	0.0	0.1	-2.9	2.8	-0.6	0.6	0.1	0.0	1.4		5.9	2.9	4.0
Personal Income, Bil $	3577.5	3590.3	3701.9	3708.5	3715.3	3739.2	3760.6	3783.2	3850.6	3833.7	3108.8	3327.0	3534.3
% Change	0.3	0.4	0.5	0.2	0.2	0.6	0.6	0.6	1.8	-0.4	9.5	7.0	6.2
Personal Saving Rate, %	3.9	4.1	1.4	4.3	3.2	3.1	2.2	3.0	5.0	3.8	6.1	4.5	4.3
FRB Exchange Rate, 1973=100	106.6	107.9	97.1	96.1	97.8	99.4	99.4	97.2	96.6	91.5	138.4	143.2	112.3
% Change	-0.5	1.2	-1.9	-1.1	1.8	1.6	0.1	-2.2	-0.6	-5.3	10.5	3.5	-21.6
Consumer Expenditures, Bil $	2839.5	2841.3	2931.5	2937.7	2961.8	2983.6	3028.8	3021.5	3015.5	3031.9	2430.5	2629.4	2799.8
% Change	-1.1	0.1	0.5	0.2	0.8	0.7	1.5	-0.2	-0.2	0.5	8.8	8.2	6.5
Retail Sales, Bil $, MR	122.2	121.7	125.0	124.9	126.3	127.1	128.9	126.8	125.6	125.9	1286.1	1378.8	1453.3
% Change	-5.3	-0.4	0.3	-0.1	1.2	0.6	1.5	-1.7	-0.9	0.2	10.0	7.2	5.4
Auto Sales, Mil	10.3	10.6	10.4	9.6	10.0	10.5	12.4	11.7	9.3	9.9	10.4	11.0	11.4
Domestic	7.0	7.2	7.4	6.7	7.0	7.2	8.7	8.0	5.9	6.6	8.0	8.2	8.2
Imports	3.3	3.4	3.0	3.0	3.1	3.3	3.7	3.8	3.3	3.3	2.4	2.8	3.2
Housing Starts, Mil	1.66	1.64	1.64	1.61	1.59	1.60	1.59	1.69	1.52	1.64	1.77	1.74	1.82
Housing Permits, Mil	1.66	1.67	1.60	1.49	1.52	1.49	1.50	1.50	1.46	1.45	1.69	1.73	1.77
Consumer Sentiment, 1966=100	95.6	91.4	92.8	91.1	91.5	93.7	94.4	93.6	89.3	83.1	97.5	93.2	94.8
% Change	4.0	-4.4	2.2	-1.8	0.4	2.4	0.7	-0.8	-4.6	-6.9	11.4	-4.4	1.7
Chg Cons Install Credit, Bil $	5.6	0.8	3.7	-0.3	4.5	3.4	5.0	6.1			67.0	74.1	68.1
INFLATION AND DETERMINANTS, % CHANGE													
CPI, All Urban Consumers	0.2	0.2	0.4	0.3	0.4	0.2	0.5	0.2	0.4	0.3	4.3	3.6	1.9
% Change Year Ago	1.6	1.3	3.8	3.9	3.8	4.0	4.3	4.2	4.4	4.4			
Consumption Deflator,	0.2	0.1	0.4	0.4	0.3	0.1	0.4	0.6	0.5		3.8	3.4	2.2
% Change Year Ago	1.9	1.7	4.1	4.2	4.2	4.2	4.3	4.5	4.9				
PPI, Finished Goods	0.3	0.0	0.5	0.2	0.2	0.2	0.2	0.3	-0.2	0.0	2.1	0.9	-1.3
% Change Year Ago	-1.3	-1.8	2.7	2.4	2.4	3.4	3.2	3.2	2.6	2.5			
PPI, Indust Commod, NSA	0.3	0.1	0.5	0.3	0.5	0.7	0.5	-0.2	0.5	0.2	2.2	0.4	-3.6
% Change Year Ago	-4.5	-4.6	1.8	2.2	2.6	4.4	5.2	4.7	4.9	5.0			
Adj Hourly Earnings Index	0.2	0.6	0.2	0.2	0.0	0.2	0.5	0.3	0.1	0.5	3.2	3.1	2.5
% Change Year Ago	2.4	2.6	2.4	2.4	2.2	2.4	2.7	2.8	2.7	2.6			
FINANCIAL MARKETS													
Federal Funds Rate, %	5.85	6.04	6.37	6.85	6.73	6.58	6.73	7.22	7.29	6.69	10.23	8.10	6.81
T-Bill Rate, 3-Month, %	5.18	5.35	5.76	5.75	5.69	5.78	6.00	6.32	6.40	5.81	9.57	7.49	5.97
Prime Comm Bank Rate, %	7.50	7.50	7.75	8.14	8.25	8.25	8.25	8.70	9.07	8.78	12.04	9.93	8.33
Moody Aaa Corp Bond, Seas, %	8.86	8.68	8.85	9.33	9.32	9.42	9.67	10.18	10.52	10.01	12.71	11.37	9.02
Treasury Bond Rate, 30-Year, %	7.70	7.52	8.25	8.78	8.57	8.64	8.97	9.59	9.61	8.95	12.39	10.79	7.80
Eff Mort Rate, FHLBB Comp, %	9.99	9.86	9.11	9.30	9.39	9.42	9.40	9.29	9.25	9.37	12.48	11.71	10.26
Money Supply (M1), Bil $	701.4	712.4	750.3	753.1	746.6	747.6	751.1	751.3	760.7	756.5	543.9	593.8	673.2
% Change	1.2	1.6	1.5	0.4	-0.9	0.1	0.5	0.0	1.3	-0.6	7.0	9.2	13.4
Money Supply (M2), Bil $	2761.4	2776.3	2839.9	2840.4	2841.6	2847.8	2062.8	2876.0	2892.7	2892.0	2274.8	2481.9	2681.9
% Change	0.9	0.5	0.5	0.0	0.0	0.2	0.5	0.5	0.6	-0.0	7.9	9.1	8.1

1989 Recession Scenario

In the absence of weaker domestic demands in 1988, inflation and interest rates are likely to move higher during the second-half of 1988, as the expected increase in exports would further strain capacity in many materials and other goods industries. Furthermore, at least a modest acceleration in wages would likely develop as labor markets become somewhat tighter. The added inflation, coupled with some likely tightening by the Fed, would cause enough upward pressure on interest rates to significantly increase the risk of recession in 1989.

1990 Recession Scenario

By 1990, the major recession risk may well be that sizable actions will be implemented by the new administration to deal with the structural budget deficit, especially since steps now being taken will not reduce the deficit below the $160 to $190 billion range. We suspect deficit-cutting actions may be adopted early in the next administration in order to "take the medicine" as early as possible so that some economic recovery can take place prior to the following election. Thus, it is possible that much more sizable deficit cuts than the two-year $40 billion tax increase package included in our forecast may be implemented during the budgeting process of 1989 — this, coupled with still high real interest rates and continued sluggish real income growth, represents the combination of factors which could produce a recession in 1990 if one does not occur earlier.

Oil Prices: Down In The Near Term

OPEC is in trouble. The meeting in Vienna is over, ending weeks of speculation about the inherent cohesion of the cartel when it comes to production quotas and crude prices. The organization seems to be unable to maneuver around obstacles ranging from the lack of a cohesive strategy on market shares to heightened tensions about the state of war in the Persian Gulf. As a result, oil prices are headed down — just how far depends on the following:

1. If OPEC members adhere strictly to their quotas, reducing production to the 18 MMBD (million barrels a day) range along with continued cooperation from several non-OPEC producers (e.g., Norway, Mexico), the market will muddle through the near term. This would leave prices in the $18 range. Otherwise, oil prices in the first half of 1988 would fall to the $14-$17 range as the market waits for demand to catch up with OPEC production. Increased OPEC output next summer could cause a renewed slide in prices then, since inventories would remain at very high levels.

2. The market may rally in January even without a formal meeting. If OPEC's neutral bloc (Venezuela, Nigeria, Indonesia) ministers start another around-the-cartel series of meetings, the market may take that as an informal effort to do something about production and cause prices to rise.

3. Obviously a price free-for-all would eventually create the environment for an emergency session of OPEC. The trigger for the timing of that meeting would be a dramatic price decline toward the $13 or $14/Bbl range within the next month.

The lower oil price scenario we have adopted for 1988 will have a marginally favorable effect on the economy. In particular: (a) it will reduce inflation as measured by the CPI by 0.6 percentage points during 1988, (b) consumer spending will grow by an added 0.3 percentage points as a result of higher real incomes, although that will be partially offset by reduced drilling activity and by higher oil imports. Thus, the net effect on GNP growth in real terms will be only about 0.2 percentage points.

Major Forecast Assumptions

Oil Prices. Oil prices dropped to near $15 per barrel in December following OPEC's failure in Vienna to reach a new production limitation agreement. We have revised downward our projection for the average refiners' acquisition cost (RAC) in 1988 and 1989. A downward adjustment of about $2.50 was made to the RAC in 1988, with the first quarter price cut from $18 to $15.50 per barrel. A modest price recovery is expected as 1988 proceeds, with the RAC moving back to $17.50 per barrel by the end of the year. The 1989 average for the RAC is $18.30 this month, compared to last month averages of $19.15. The forecast for the RAC in 1990 remains at $18.75.

The Dollar. The dollar continued to slide in December following the pattern set after the October stock market crash and the drop in U.S. interest rates which made dollar assets less attractive. We continue with our view that further declines in the dollar will occur over the next two years, given the ongoing large foreign borrowing requirements of the United States. Our forecast assumes that the trade-weighted value of the dollar as calculated by the Federal Reserve will drop an additional 10.6% between the fourth quarter of 1987 and the fourth quarter of 1989. A moderate upward correction in the value of the dollar is expected to occur in 1990.

Taxes. Tax assumptions have not changed this month. We continue with a $12 billion tax increase beginning in 1988.1 consisting of $3 billion in personal income taxes, $4 billion in corporate profits taxes, and $5 billion in excise taxes. This assumption will be fine-tuned next month after we have studied the package just signed by the President. We also continue to assume that a $40 billion tax increase package will be implemented after the general election, regardless of which party wins the election. This package will be phased in over two years.

Government Spending. Federal expenditures (NIPA basis) are projected to be $1106 billion, $1172 billion, and $1243 billion in fiscal years 1988–1990, respectively, virtually no change from last month's forecast. Federal revenues for these years are projected to be $934 billion, $988 billion, and $1067 billion, implying deficits of $172 billion, $183 billion, and $176 billion for fiscal years 1988–90.

Monetary Policy. The trading range for the federal funds in December has continued to be 6.5% to 7%. The bulge in the October trade deficit has been interpreted by the Fed as an aberration, so tightening moves are not yet planned. We continue to expect the federal funds rate to remain in the 6.5% to 7% range in the first half of 1988. There will be a downward blip in the inflation statistics early next year as a result of the drop in oil prices, but we believe that the Fed will choose not to lower rates, given continuing fears of second half inflation as well as dollar pressures. In the second half of next year these forces are assumed to lead to a policy shift by the Fed toward credit tightening. The funds rate is expected to move up to 7.5% by 1988.4 and then average 8.4% in 1989 and 7.6% in 1990, a year of slow growth.

Forecast Highlights

Real GNP will rise 3.0% in 1987.4 after advancing 4.3% in 1987.3. Real output is expected to grow 2.8% in 1987, 2.3% in 1988, 2.3% in 1989, and 1.6% in 1990.

Consumer spending will advance 1.9% in 1987, followed by advances of 2.0% in 1988, 2.1% in 1989, and 1.5% in 1990.

Automobile sales will average 10.2 million units in 1987, 10 million units in 1988, 10.2 million units in 1989, and 9.75 million units in 1990.

Business fixed investment will increase 1.5% in 1987, followed by increases of 7.7%, 5.7%, and 0.3% in 1988, 1989, and 1990.

Housing starts will average 1.65 million units in 1987 and 1.56 million units, 1.45 million units, and 1.53 million units in 1988, 1989, and 1990, respectively.

Industrial production will rise 3.6% in 1987, 3.3% in 1988, 2.4% in 1989, and 1.0% in 1990.

Unemployment will average 6.2% in 1987, 6.1% in 1988, 6.2% in 1989, and 6.6% in 1990.

Consumer price inflation will average 3.6% in 1987, 3.8% in 1988, 4.7% in 1989, and 4.3% in 1990.

Critical Forecast Risks

Positive

Stronger Exports. The forecast assumes that the moderate export boom will continue next year. Either faster growth abroad or more dollar depreciation would provide an additional boost to exports, offsetting more of the drop in domestic demand generated by the stock market crash. Too much of an export expansion, however, would strain capacity in many companies before their recent capital expansion projects become operational.

Smaller Stock Market Crash Effect. Consumer and business spending may retrench less than expected ($25 billion and $10 billion, respectively). Stronger domestic demand would push up real growth in 1988. But wage inflation pressures would be stronger, increasing the chance of recession in 1989 induced by monetary tightening.

Negative

Larger Retrenchment in Private Domestic Demand. Our new forecast assumes that domestic demand will be directly reduced by $35 billion in 1988 as a result of the stock market crash. A much larger contraction in demand would increase the odds of a recession next year.

More Imported Price Inflation. The recent major declines in the dollar may lead to more pressure on import prices, import-competing prices, and export prices than is assumed in the baseline. Higher externally generated inflation may force the Fed to tighten sooner and more strongly, increasing the odds of a downturn in late 1988 or 1989.

Mixed

Oil Price Plunge. Oil prices could retreat to $12 per barrel early next year as they did in 1986. Consumers would temporarily benefit from the saving on their energy bills, but the oil patch would once again suffer, with drilling activity declining. The nominal trade deficit would improve, but the effect on the dollar of lower oil prices is uncertain.

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WHARTON ECONOMETRIC FORECASTING ASSOCIATES

Executive Summary

December 1987

World Outlook

Nariman Behravesh and John H. Green

While it is still too early to assess the full impact of the stock market crash on the world economy, the implications for growth and policy are becoming clearer.

World growth in 1988 will be lower by about half a percentage point as a result of the crash. The impact on the United States will be twice as large because of the larger household sector exposure to the stock market. Growth in Europe and Japan will be cut by 0.3% and 0.4%, respectively, due to more cautious investment spending and a weaker world trade picture. The impact on the developing nations will be twice as large as the impact on the developed countries because of the loss in export markets. Particularly hard hit will be Latin America and the Middle East. Lower growth also means lower inflation. The developed countries inflation will remain in the 4.0% to 4.5% range for the next five years.

The Aftermath of the Crash

— The crash also intensified pressures on the United States to reduce its budget deficit. After a month of deliberation, Congress and the president finally produced a modest package of savings. While the ratio of public borrowing to GDP in the United States is not out of line with the other developed nations — Japan's borrowing requirement as a share of GDP is actually higher — the very low U.S. savings rate means that the United States has no choice but to keep cutting its deficit.

— Monetary authorities around the world moved quickly to avert a liquidity crisis. The Bank of Japan and the Bundesbank were pressured to keep their interest rates down. Additional monetary easing in Europe began following the announcement of the U.S. budget accord. As a result, key interest rates in international capital markets will be one-half point lower in 1988 and a full point lower in 1989 than predictions made before the crash.

— There is widespread recognition now that the Louvre accord needs to be scrapped or at least overhauled. Monetary authorities in the Summit Seven nations realize that by trying to hold exchange rates within a narrow band they increased volatility in the bond and stock markets. The challenge for the next G-7 meeting is how to bring the dollar down to a new sustainable level without triggering another crisis.

— The impact of the crash on the debtor nations will be largely negative. Lower OECD growth and lower growth in commodity prices will mean lower export earnings. Partially offsetting this, however, will be lower interest rates and, therefore, potentially lower debt servicing costs.

Not all the implications of the crash are bad. If it brings about lower consumer spending growth, higher savings, and lower deficits in the United States, then one can argue that the markets did what the U.S. policymakers could not. However, the question still remains, Who will pick up the slack created by slower growth in the United States? While Japanese growth has picked up, realistically, Japan alone cannot take up all the slack. Thus, pressures on Germany intensified and the Bonn government, along with the Bundesbank, announced a package of stimulative measures. Key provisions include a 0.5% discount rate reduction and DM21 billion in below market rate lending to local governments and small businesses. While it is still too early to judge the impacts of these moves, they are likely to be small. The measures do, however, signal the government's willingness to do its part in international policy coordination. Whether the leaders of

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the G-3 countries can bring about an orderly growth transition without bringing the world economy to a standstill remains to be seen.

The U.S. Deficit Reduction Package: Too Little, Too Late?

In almost everyone's eyes a speedy and meaningful resolution of the deficit discussions in Washington was a necessary first step in the renewed attempts at policy coordination. In light of this, the budget accord that finally emerged was a disappointment. To begin with, it took the negotiators a month to agree to the broad outlines of a two-year deficit reduction. This is symptomatic of the leadership vacuum that exists today in Washington with a lame-duck president and a deeply divided Congress.

The negotiations also failed to take advantage of the opportunity provided by the stock market crash to make significant reductions in the deficit. With the 1988 elections approaching, politicians from both parties were reluctant to take risks that would hurt them politically. Specifically, the Republicans shied away from cuts in social security, and the Democrats were unwilling to push for a large tax increase without much stronger leadership from the president.

The budget proposal that was agreed to contains the following provisions:

— A two-year $76 billion package with $30.2 billion in cuts for the current fiscal year.

— Spending cuts of $11.6 billion for this fiscal year, including a $5 billion cut in the military budget.

— Tax increases of $9 billion, the burden of which would fall heavily on corporations.

— The most disappointing element of the budget accord is that $9.6 billion, or roughly a third of the deficit cuts in fiscal year 1988 come from one-time savings, including asset sales, new government fees, and interest savings on the national debt.

Despite serious misgivings about the budget accord, Congress is likely to pass it because the alternatives are even less palatable. Most congressmen do not like the automatic cuts implied by the Gramm-Rudman law. Nor do they relish the prospects of another financial crisis and a voter backlash if they do nothing.

Finally, the budget cuts will not be large enough to prevent the U.S. budget deficit from rising over the next two years. The reported savings are calculated on a current services basis rather than savings over the previous fiscal year. The large drop in the 1987 budget — from $220 in 1986 to $149 in 1987 — was due to one-time savings that will be reversed this year. Nevertheless, the long-term trend for the U.S. deficit in absolute terms and as a percent of GDP is downward.

The Dollar and Renewed Attempts at Policy Coordination

The dollar problems can be viewed simply in the following way. The United States has $150 billion in external borrowing needs. It can meet these needs in at least three ways. **First**, it can reduce its borrowing needs by cutting the deficit or increasing private savings. Both of these take time. **Second**, it can make U.S. assets cheaper, and more attractive, by depreciating the dollar. **Third**, it can raise the relative rate of return on U.S. assets. **Finally**, if these measures fall short, central banks can intervene and buy up any excess supply of dollars.

Before October 19, the United States raised interest rates with disastrous results. Now, it is in effect trying to follow both the first and second options. However, given the higher risks of recession in the United States now, the dollar can only be supported if interest rates in the other summit seven countries are lowered. For precisely this reason, both immediately before and after the crash, the United States focused its efforts on getting more monetary, rather than fiscal, stimulus from Germany and Japan.

Within the next few weeks there will be a G-7 meeting that will attempt to rationalize the changes in exchange markets and to coordinate future policy actions. The stock market volatility at the end of November has added a sense of urgency to this meeting. Each side will come to the meeting with its own set of demands.

TABLE 1.1 WORLD FORECAST SUMMARY

	1985	1986	1987	1988	1989	1990	1991	1992
	REAL GDP (PERCENT CHANGE)							
WORLD	3.1	2.9	2.8	2.4	2.8	2.5	3.3	3.1
OECD	3.2	2.8	2.7	2.3	2.5	2.2	3.2	2.8
UNITED STATES	3.3	3.1	2.8	2.5	2.3	1.8	3.5	3.1
CANADA	4.3	3.3	3.7	2.2	2.7	0.8	2.9	2.9
JAPAN	4.7	2.5	3.1	2.5	2.9	2.8	3.2	2.7
EUROPE	2.6	2.6	2.4	2.0	2.4	2.5	3.1	2.7
GERMANY	2.6	2.5	1.7	1.9	2.1	2.8	2.5	1.9
FRANCE	1.7	2.1	1.6	1.5	2.2	2.1	2.7	2.6
ITALY	2.3	2.7	2.8	2.1	2.8	2.2	3.7	2.5
UNITED KINGDOM	3.7	2.9	3.4	2.5	2.1	2.0	3.0	3.0
DEVELOPING COUNTRIES	2.5	2.2	3.0	2.3	3.4	3.1	3.9	4.3
AFRICA	1.3	-1.5	-1.0	0.6	2.8	2.7	2.5	3.1
LATIN AMERICA	3.8	3.8	3.4	0.6	2.3	2.5	3.3	3.9
PACIFIC BASIN	2.1	4.9	7.8	5.5	5.8	3.9	5.3	6.0
ARABIAN GULF	-1.6	-3.0	0.2	1.6	2.5	4.1	5.0	4.3
OTHER ASIA & MIDDLE EAST	4.2	3.3	2.6	4.3	4.3	3.4	4.2	4.0
CENTRALLY PLANNED ECONOMIES	3.3	4.2	3.3	3.2	3.3	3.0	3.0	3.1
	PRIVATE CONSUMPTION DEFLATORS (PERCENT CHANGE)							
OECD	4.8	2.9	3.6	4.0	4.5	4.4	4.0	4.3
UNITED STATES	3.4	2.2	3.9	4.2	4.7	4.6	3.5	4.0
CANADA	4.0	4.2	4.2	4.9	5.2	4.7	4.0	4.0
JAPAN	2.1	0.6	0.3	1.4	3.0	2.5	2.3	2.8
EUROPE	6.4	3.4	3.8	4.3	4.4	4.6	4.6	4.8
FRANCE	5.7	2.5	3.2	2.8	3.1	3.7	3.8	3.5
GERMANY	2.1	-0.4	0.8	2.6	2.2	2.2	2.8	3.5
ITALY	9.5	6.1	4.8	4.4	4.5	4.7	5.3	5.4
UNITED KINGDOM	5.2	3.6	2.8	4.4	5.2	5.6	5.8	6.3
	UNEMPLOYMENT RATES (PERCENT OF LABOR FORCE)							
OECD	8.8	8.7	8.3	8.4	8.6	8.9	9.1	9.6
UNITED STATES	7.2	7.0	6.2	6.1	6.2	6.8	6.4	6.1
CANADA	10.4	9.6	9.3	9.3	8.8	8.8	8.3	8.0
JAPAN	2.6	2.8	2.9	3.4	3.5	3.5	3.3	3.2
EUROPE	11.5	11.4	11.1	11.1	11.4	11.7	12.4	13.7
GERMANY	9.3	9.0	9.0	9.0	8.7	8.2	7.8	7.6
FRANCE	10.2	10.5	10.9	10.8	10.8	11.0	11.2	11.2
UNITED KINGDOM	13.0	13.1	11.8	10.9	11.0	11.2	10.9	10.3
	SELECTED COMMODITY DOLLAR EXPORT PRICES (PERCENT CHANGE)							
WHEAT	-4.7	-9.8	-6.2	-1.6	2.2	3.4	4.3	4.2
OTHER CEREALS	-19.1	-6.6	-9.5	1.6	3.1	3.4	4.8	4.0
COFFEE, TEA, COCOA	-11.5	23.5	-18.4	1.8	2.2	1.0	4.5	2.9
SAUDIA ARABIA AVERAGE EXPORT PRICE OF CRUDE PETROLEUM ($/BARREL)	27.75	14.00	16.70	16.90	17.00	17.10	18.95	20.48
PERCENT CHANGE PER YEAR	-2.5	-49.5	19.3	1.2	0.6	0.6	10.8	8.1
	SHORT-TERM INTEREST RATES (PERCENT)							
LONDON INTERBANK RATE	8.4	6.9	7.1	8.1	8.5	8.0	7.0	7.4
UNITED STATES	8.0	6.4	6.7	7.5	8.4	7.6	6.6	6.9
JAPAN	6.5	4.8	3.5	3.5	3.9	4.2	4.8	4.9
GERMANY	5.2	4.6	3.8	4.4	5.4	4.6	5.1	5.5
FRANCE	9.9	7.7	8.8	9.0	9.0	8.6	7.8	7.7
UNITED KINGDOM	11.5	10.4	9.4	9.8	9.3	9.5	9.9	10.3
	EFFECTIVE EXCHANGE RATES (MERM WEIGHTS, PERCENT CHANGE)							
UNITED STATES	4.2	-18.2	-11.7	-6.2	-1.5	1.4	3.3	0.9
JAPAN	2.5	26.7	8.1	5.8	1.3	-0.8	-3.4	-1.6
GERMANY	-0.1	10.9	7.5	4.1	2.7	0.3	-0.7	1.2
FRANCE	1.0	6.0	2.1	0.9	0.7	0.3	0.4	1.4
UNITED KINGDOM	-0.5	-7.2	-0.7	4.2	0.2	-0.0	-2.5	-2.8
	WORLD TRADE (PERCENT CHANGE)							
VOLUMES(EXPORTS), TOTAL	1.9	5.5	4.7	3.9	3.8	3.2	4.5	3.9
PRIMARY COMMODITIES (NON-FUEL)	5.6	6.0	6.3	6.4	5.0	3.7	4.8	4.8
FUELS	-10.8	18.0	5.5	5.0	3.2	4.0	2.3	3.1
MANUFACTURED GOODS	4.1	2.6	4.1	2.8	3.6	2.8	5.0	3.8
PRICES (EXPORT DEFLATORS,DOLLARS), TOTAL	-1.4	4.5	10.6	7.1	4.4	2.2	2.3	3.7
PRIMARY COMMODITIES (NON-FUEL)	-9.3	3.9	4.8	2.8	2.6	2.0	2.7	2.6
FUELS	1.9	-37.8	8.0	5.8	4.3	1.2	8.6	7.2
MANUFACTURED GOODS	0.4	16.8	12.6	8.7	4.9	2.5	1.0	3.4
	CURRENT ACCOUNT BALANCES (US$ BILLION)							
UNITED STATES	-116.4	-141.4	-156.1	-142.3	-146.4	-137.6	-137.0	-129.6
JAPAN	49.2	85.7	84.9	79.4	74.8	69.5	56.3	49.4
EUROPE	25.2	55.7	36.9	30.7	33.2	23.0	18.2	22.1
DEVELOPING COUNTRIES	-17.1	-23.2	-6.8	-1.5	5.0	7.7	14.9	19.3
CENTRALLY PLANNED ECONOMIES	-9.2	-7.9	1.6	1.8	2.0	2.0	2.1	2.5

The United States wanted to delay the meeting in an attempt to first implement the budget accord. From the U.S. point of view, further delays would also help the United States by putting additional pressures on the other countries from a weaker dollar. Mr. Baker and the U.S. team will insist on stronger coordination of macro policies, and they will reserve the right to resist increases in U.S. interest rates in an attempt to avert a recession.

European and Japanese Policy Shifts Reflect External Pressures

The European and Japanese in turn will ask that the United States once again help in supporting the dollar. The support they will seek will be not so much to peg the dollar but to bring it down smoothly to a new equilibrium level. In the wake of the crash, the Fed has allowed the dollar to drop and has done little to support it. In an attempt to support the dollar, German and Japanese interest rates will likely drift down, and at a minimum, will not rise for a while. However, neither country is likely to apply significant further fiscal stimulus. Japan feels it has done a lot already and that economy is now supported by domestic expansion. The German government, with the newly announced plan for below-market loans and the discount rate cut, again showed its preference for credit market measures. Therefore, any stimulus in these countries will come from modest monetary easing. The monetary stimulus from Europe and Japan will be modest, however, since there are lingering concerns about overheating and a perception that these countries will not be hurt much by the crash.

Viewed from outside the United States, the stock market crisis rose fundamentally out of a market conviction that world imbalances had to be corrected more quickly. That conviction remains and will color European and Japanese government, market, and central bank attitudes to the deficit question. If the United States fails to deliver significant budget cuts and continues to behave as if no deceleration in growth is possible, the world economy is likely to lurch from one crisis to another. Indeed, the end-of-November dollar slide has been blamed on market fears that the U.S. budget compromise will be hung up in Congress.

If, however, confidence is maintained, then while U.S. growth is revised down, other developed nations will be much less affected. Share ownership is not so widespread and portfolio size is smaller, so consumers will be affected very little. This would at present be the predominant reaction if it were not for the privatization processes that have widened share ownership. In France, in particular, where most issues are recent, losses are being suffered by those who held the stock.

Business is more likely to experience difficulties, at least in the short term. Many major European businesses either export to the United States, or have recently bought companies there. In either case, some cash flow problems are likely, reducing the potential for investment in 1988. This, combined with slower growth in world trade, will be sufficient to reduce growth by about half a percent in most European countries and Japan.

Can The U.S. Trade Deficit Be Sustained?

The shock provided by the stock market crash has done little to accelerate the unwinding of the major imbalances in the world economy. Despite the downward revision in the U.S. outlook for 1988, the forecast shows only a minor — roughly $10 billion — adjustment in the U.S. current account deficit. The medium-term outlook is for a string of $140 to $150 deficits. How can this go on? **First**, the baseline forecast does include a continuing dollar depreciation over the next few years. In this sense, the structural U.S. trade deficit does influence the outlook. **Second**, the forecast maintains U.S. interest rate differentials vis-a-vis other major currency rates.

Measured in relation to world savings, the U.S. deficit may be smaller than it first appears. While in both absolute and relative to GDP terms, the U.S. current account deficit is without equal, the share of world savings necessary to finance the U.S. current account is actually declining.

In 1985 investors outside of the United States committed 10.6% of their new capital to U.S. assets. By 1987 this figure dropped to 9% and is expected to decline to just over 5% by 1992. Thus, while the U.S. trade deficit remains large in absolute terms, the share of net new world savings to be invested in dollar denominated assets will shrink over time.

The U.S. foreign sector actually performs better than the current account forecast suggests. Over the next five years, the merchandise trade deficit is expected to improve by some $40 billion, despite a $50 billion increase in the oil import bill. The real trade accounts improve sharply, from a $170 billion deficit in 1987 (GDP basis, 1980 prices) to $75 billion in five years. This stimulus from the foreign sector provides roughly 25% of GNP growth over the medium term.

Asian NIC Currencies Appreciate

After the stock market crash and the fall in the value of the dollar against other major currencies in the days that followed, the United States has applied renewed pressure on the four Asian NICs to let their currencies appreciate further against the U.S. dollar. This has particularly been the case with Korea and Taiwan, whose trade surpluses against the United States have continued to swell as their exports reap the benefits of a higher-valued yen.

Thus the objective circumstances that each of the NICs finds itself in has largely conditioned its response to U.S. demands. Taiwan is the most vulnerable in this respect, sitting on top of $72 billion in reserves and with no debt to speak of. Meanwhile its bilateral trade surplus with the United States amounted to $9.4 billion over the first seven months of this year, 25% larger than in the corresponding period of 1986. Thus it has had little choice but to revalue; the New Taiwan dollar has appreciated by 20% against the U.S. dollar since its low point in August 1986, three-quarters of this coming in 1987. Nevertheless, over the same period, it has depreciated by 3% against the yen, as the latter has risen more strongly against the U.S. dollar. Starting in February 1985, the NT dollar has fallen by 46% against the yen, making it clear that there is still considerable room for revaluation. We are projecting an 8% year-over-year appreciation in 1988, an estimate that may be on the conservative side.

Korea, the other large NIC, had long argued that its huge debt burden, which had reached $48 billion by end-1985, merited special consideration from the United States. Now that debt is no longer a problem, with the country generating continued current account surpluses, it has shifted its stance and has been claiming that its precarious political situation and the damage caused by the labor unrest earlier this year does not allow a more significant appreciation of the won. In retrospect the labor strikes appear to have done no lasting damage to the economy, while the trade surplus with the United States has continued to grow to $6.8 billion over the first nine months of 1987, 28% larger than in the corresponding period of last year. The won has appreciated by about 10% against the U.S. dollar since its low point in July of last year, again with most of this coming in 1987. The won/yen cross-rate today stands an impressive 83% below its value in February 1985. We are projecting an 8% year-over-year appreciation of the won against the U.S. dollar in 1988.

Hong Kong has unexpectedly found itself targeted, along with Taiwan and Korea, by the United States in the last few months as one of the economies that should revalue its currency. This has been motivated by the colony's growing trade surplus with the United States. The bilateral trade surplus over the January-July period amounted to $5.2 billion, 25% larger than a year earlier. However, Hong Kong has no trade restrictions to speak of that could limit U.S. imports. Rather, the growing surplus has been a product of the HK dollar being pegged at 7.8 to the U.S. dollar since October 1983, making Hong Kong the biggest gainer among all the NICs from the currency realignments. Currently we do not expect that the government will yield to U.S. pressure to unhitch the HK dollar from the peg.

Singapore has so far been subject to the least amount of U.S. pressure. On the one hand, its economy, like that of Hong Kong, thrives on free trade. On the other, unlike the other NICs, it has not been running large trade surpluses against the United States. While the bilateral trade surplus has expanded because the S$, like the other NIC currencies, has fallen a cumulative 74% against the yen since February 1985, this still amounted to only $1.5 billion over the first nine months of 1987. As the overall current account moved into surplus last year, the S$ has appreciated against the U.S. dollar, rising 9.4% since February 1985. We project that the currency will appreciate more slowly in 1987, at a 4.6% annualized rate, as inflationary pressures are likely to mount more rapidly than in the past.

Latin America Learns The Lessons of The Baker Plan

The solution to growing problems in poor debtor nations proposed by U.S. Treasury Secretary Baker implied contributions by both creditors and debtors. Banks were to increase lending. Governments in industrial nations were to avoid protectionist measures and keep national GNP growing at a healthy rate. Debtor nations were to make structural reforms designed to increase the efficiency and competitiveness of their economies.

It is now obvious that the creditors are not complying with the plan. Banks have not increased long-term lending by anything like the target of the Baker Plan. While the U.S. economy grew 6[illegible]% in 1984, growth rates have declined subsequently. The October stock market crash has led us to revise our 1988 GNP estimates further downward from the anemic rates previously forecast for OECD countries. The United States is on the verge of imposing trade sanctions against Brazil, where Finance Minister Bresser Pereira risked recession and hyperinflation to generate trade surpluses. Neither Japan nor Europe has gone far in stimulating its own economic growth or in dismantling trade barriers.

For the debtors, two lessons appear to have emerged from the Baker Plan. **First**, those debtors that complained about or threatened to interrupt service of their foreign debts suffered little in the way of retaliation. Rollovers of existing debt became progressively more difficult, and new long-term lending by commercial banks disappeared. Short-term trade-related financing continued uninterrupted, however. **Second**, the private sector reacted positively in those debtor economies that provided more incentive to export. Nontraditional exports grew rapidly, and governments suffered few political setbacks as a result of their reforms.

Banks with large Latin American portfolios can take little comfort from this trend, however, as the apparent impunity for those debtors who bargained hard in 1987 will probably generate more payment problems in 1988. In those countries where the lesson of the advantages of trade liberalization was learned, however, the coming year could be a good one for shipping, trade, finance, and export activity.

Oil Exporter Assets Eroded in Stock Market Crash

The recent collapse of world equity markets may have had a minimal direct impact on the economies of the Middle East, but the indirect impact is nonetheless considerable. Certain Middle Eastern governments, like those of Kuwait and Saudi Arabia, are known to have suffered capital losses on their sizable equity investments in international markets. Of greater consequence is the loss suffered by the GCC governments as a result of the decline in financial yields in the aftermath of the New York stock exchange collapse, and also the significant fall in the value of the dollar that has occurred since then. Lower yields imply lower investment income for countries like Saudi Arabia, Kuwait, and the UAE, which had built up international portfolios in more prosperous times, and hence their greater dependence on their doubtful oil income. The weaker dollar implies a further deterioration of their terms of trade, and the erosion of their purchasing power — unless, of course, oil prices (which are denominated in dollars) are revised upward.

The likelihood of higher oil prices would seem to have been diminished by the shock the world experienced on October 19. There is less reason to be optimistic about the growth in world oil demand, and, as OPEC seems singularly unable to maintain production or pricing discipline, the market cannot be expected to support higher prices for long, even if we are talking about nominal dollar prices. The Saudis have already indicated their firm opposition to raising official prices at the December meeting, insisting, for one, that they have no intention of contributing to economic uncertainty by raising oil prices.

Senator **Sarbanes**. Gentlemen, we thank all of you very much for, I think, some very helpful presentations.

We will take 10-minute rounds among the committee members.

Let me put this question to all of you. I have a series of questions I would like to put very quickly and get, I hope, a quick response.

Do you all subscribe to the concept that there is a natural rate of unemployment? In other words, that there is a point at which labor and product markets becomes increasingly tight and therefore continuing to push hard on the unemployment front, getting unemployment down, will provoke major costs on the inflation front? Is that a concept that everyone accepts?

Mr. Kellner.

Mr. **Kellner**. Senator, this concept had gained much acceptance in the profession, but I would submit, as several of my colleagues have indicated, with the unemployment rate down at what had been considered to be in the full-employment zone, it is interesting to note that labor was very quiescent in 1987, suggesting that, tight labor markets notwithstanding, wage pressures need not necessarily result from any particular unemployment number.

External factors such as foreign competition, internal factors such as corporate restructuring, plus the continuing change in the nature of jobs in the economy away from services in this particular instance and back to manufacturing, and previous to that away from manufacturing and back to services, are keeping labor from taking advantage, if you would, of what seems at the macrolevel to be relatively tight labor markets.

Senator **Sarbanes**. You are mixing, in a sense, into my next question: If the concept is accepted, what is the level?

So let me just put that question and let members respond, in effect, by answering both, since I can see that you can't separate the second from the first altogether. But is the notion of this concept valid and, if so, what is the level?

And let me just ask my third question, to put it all out on the table. This unemployment level used to be much lower. At one point, we talked about 2 or 3 percent, and we said we can push toward 3 percent before hitting major inflationary repercussions. It has constantly been moved upwards, I am concerned whether it has moved upwards because of an underlying analysis of the factors, or whether it is simply because we haven't done very well, and we keep having these higher unemployment levels, and then finally someone comes along and says that this higher level is really the normal level. So you define yourself into a normal situation simply by changing your definition of the concept.

Mr. **Kellner**. If I may follow up?

Senator **Sarbanes**. You will all get a chance. Yes.

Mr. **Kellner**. Well, if I could just finish, one should not lose sight of the fact that employment has continued to grow and, for most of the last few years, has been at a record level. In other words, the economy continues to create jobs, but not to the extent where everybody who is looking for a job is able to find one.

I think this is largely due to changing demographics, the change in the proportion of women and teenagers in the labor force today compared with, let's say, 20 years ago. That has been a factor that has raised the so-called natural level of unemployment.

So that would be my answer to the third question.

Mr. **Eisner**. I am delighted at your questions, Mr. Chairman. I have argued for some time that the natural rate is not natural. I think the whole concept has been one of the more pernicious things that has affected the profession. It probably goes back largely to the distinguished Professor Milton Friedman's presidential address of some 20 years ago.

We used to think of a full-employment rate as a rate of unemployment at which everybody who wants to work can work. I think that is the essential sound concept. That got tremendously confused with the natural rate, which I say is not natural. Whatever the full-employment rate is may well depend upon all kinds of institutional arrangements, including day care centers for women and everything else.

The natural rate become associated in people's minds somehow with a nonaccelerating inflation rate, the notion that the economy would spring to inflation when you got below that rate of unemployment. And that became very convenient then, as you point out. As the unemployment rate rose, I think frequently because of mistaken government policies, as it was allowed to rise, as a kind of trend developed in political thinking that unemployment wasn't so bad and inflation was a terrible thing, people accepted more and more unemployment, and I must say that too many of my colleagues in the profession, as I suppose anywhere, go along with popular thinking and political wisdom, conventional wisdom.

As you pointed out, the unemployment rate has been even as low as 3 percent for a month or two back during the Vietnam war. At that time we had inflation rates of 3 and 4 percent and people were screaming, that's terrible; we now talk of 4 percent for this current year, and there was therefore no more then.

The fact is that unemployment is a very great loss, a real loss. Inflation people talk about. Modest inflation means prices of what you buy are going up; prices of what you sell are going up. Economists really can give you no unequivocal answer, as Professor Blinder has pointed out, as to what the natural rate is at some point, one point or another, what the so-called natural rate is, what will kindle inflation; and yet they are willing frequently to tell the Federal Reserve or give you advice and say, don't do this, don't do that; you might cause inflation.

I would say, don't do this, don't do that; you might wreck the economy. You might cause excess unemployment. I differ, gently perhaps, with Professor Blinder, when he says, cautiously edge down on the unemployment because you might perhaps be hitting that trigger point.

If we don't know where that trigger point is, and there is a great loss from unemployment, let's ride the unemployment rate down. To the extent there is danger of inflation, there are many ways of combating inflation other than trying to slow down the economy.

I am always just astonished by people who say, well, we have to raise interest rates or slow the economy to stop inflation, and they come out for protection, they come out for interference in the economy in one place or another, every place that holds prices up, that prevents inflation from going down. That kind of thing that they don't talk about but they do talk about slowing the economy, raising interest rates, because somehow unemployment is maybe getting so low that it might cause inflation.

Senator **Sarbanes**. Mr. Blinder.

Mr. **Blinder**. Let me take your three questions one at a time and very briefly.

Is there a natural rate? I think the vast majority of economists would say there is. After all, all we mean by a natural rate is a level of unemployment at which the labor market is getting so tight that there gets to be severe upward wage pressures.

There is some recent scholarly research, but I think it has much greater support for Europe than it does for the United States, arguing that there is no such thing as a natural rate; that is to say, by achieving low unemployment, we could reduce the natural rate of unemployment. The evidence looks pretty favorable to this unconventional view for some European countries, but not so good for the United States.

So, if I were a betting man, which I am in small amounts, I would say you probably have about an 80-percent chance that there is a natural rate and a 20-percent chance that there is not. And, if I was sitting in the Congress, I would pick the 80-percent chance—although, since I'm not, I might sometimes pick the other. [Laughter.]

What is the level of the natural rate? I tried to address that in my prepared statement, and I think the answer is that it is probably something below 5.5 percent, and we can't really tell how much below.

As far as the previous experience you mentioned goes, I don't think you could have gotten even 5 percent of the American economics profession to sign on to 2 or 3 percent as an estimate of full employment. When the Humphrey-Hawkins legislation was passed in 1978—is that right?—almost all economists said that 3 percent was an unattainable goal. It didn't matter whether they were liberals, conservatives, hawks, or doves on unemployment; it just looked like an unattainable number.

During the Kennedy administration, 4 percent was the conventional number for full employment. I would like to see us back at 4 percent now. But I am not sure we can get there.

I think much research that has taken place on the 1950's and 1960's, that is, research that has been done in the 1970's and 1980's looking back at that period, suggests that we were not correct in the early 1960's when we said that 4 percent was the natural rate. It might have been more like 4.5 or 5 percent at that time. If you think of it 4.5 or 5 then, and factor in some of the things that have changed since then, something in the 5 to 5.5 percent range seems a believable number.

Senator **Sarbanes**. Isn't one danger, though, this concept of the natural rate, that as you reach that level, you give up on trying to lower the unemployment rate instead of continuing to try to lower it, but recognizing that you have got to take other policies in conjunction with it to address the tightening markets and to ease the pressure that exists there?

Mr. **Blinder**. That is exactly right. Let me clarify.

When we speak of a natural rate, it is a rate which you can push down by aggregate or macropolicies only at your peril, at the peril of higher inflation.

There are, however, structural labor market policies. Unfortunately, they are easier to enunciate than to make work. But if we could do a better job than we do of training, retraining, education, achieving greater fluidity in the labor markets, et cetera, then the natural rate could certainly be reduced.

Senator **Sarbanes**. Mr. Sinai.

Mr. **Sinai**. On the three parts of your question, the concept, the word "natural" is to me somewhat semantic. If by that you think of an unemployment rate that is associated with rising inflation, you could call it natural, you could call it the full employment unemployment rate, you could call it almost anything. So the concept is OK, but I don't think that the word "natural" has any special significance, nor should it have.

As far as the level goes, it is not identifiable except ex post. It has changed over history because the work that has been done generally associates and looks at inflation acceleration at times of different unemployment rates and comes up with a figure. Why can't it be ever lower? It could be lower. It could be higher. It can be lower or higher. It depends on the historical data and the association between the unemployment rate and inflation.

I will give you an example. In the 1970's, the exogenous oil price shocks, the fourfold and then doubling of oil prices raised price inflation. It also drove up wage inflation as wages responded to price inflation. And, there was an association of, at higher unemployment rates, higher inflation rates and the natural unemployment rate was raised.

I think one could just reverse that now. We have had some disinflationary oil price shocks. And on that alone, the natural unemployment rate could be reduced. On that alone, because it helps the productive potential of our economy, just the opposite of what it did in the 1970's, the oil price factor helps our productivity and can lower the natural rate of unemployment.

Another way would be on the policies that Professor Blinder mentioned. So I don't think there is anything unnatural about 2 or 3 percent. My own preference would be to try to see policies devised and thought about that would aim for a much lower "natural unemployment rate" working on the inflation side of it and the labor market side of it, the structural side of it, so that we could have a lower unemployment rate along with lower inflation, at the same time. It is doable if people think about it.

Senator **Sarbanes**. Mr. Behravesh.

Mr. **Behravesh**. My position is close to Professor Blinder's. I accept the concept. I think it is a reasonably good concept. It is difficult to figure out what the number is. Reasonable estimates suggest that the range is 5 to 6 percent right now.

We have seen it trend upward in the 1960's and 1970's, and we will see it trend downwards in the 1980's and the 1990's.

Because we are within the full-employment range, all we can hope for in terms of a noninflationary policy is to see the actual unemployment rate ease a little bit more. I don't think we have the luxury of pushing it down very fast, given the current set of policies. If we were to have policies to reduce structural unemployment then we could push the unemployment rate down more.

Senator **Sarbanes**. All right, Mr. Kellner.

Mr. **Kellner**. May I make one general observation, Senator?

The emphasis on the so-called natural rate of unemployment suggests that labor is the only or, at the very least, the primary cause of inflation. In reality, there are many, many different causes of inflation. And in this regard, I would like to agree with my distinguished colleague, the chairman of our profession, Bob Eisner, who says we should try to get the unemployment rate down as low as possible.

You know, depending upon where you are in the economy and what stage you are, you could have inflation coming from, as Allen Sinai said, such factors as oil prices. It could arise because of bad weather. It could arise because of military action. Certainly it could be a result of the lower value of the dollar. It could be due to a lack of productivity. There are many, many factors involved in inflation.

And I would suggest that we should, as a matter of policy, try to get the unemployment rate as low as possible and not be overly concerned that this alone is going to generate inflation.

Senator **Sarbanes**. Thank you.

Mr. **Behravesh**. Could I just respond to that point very briefly?

I don't have a big disagreement in terms of getting the unemployment rate down. I guess the risk here is while inflation may start anywhere, it tends to get built in and build up momentum if you have very tight labor markets. And that is the issue here. Are we going to get ourselves into a situation where labor markets are very tight and an inflationary shock starts to snowball on itself?

Senator **Sarbanes**. Gentleman, I am going to have to pass the baton along to my colleagues. I think I have used up all of my time in this one set of questions.

Before I do that, I want to put one very quick question to you, Mr. Behravesh, because you may leave and I might not get another chance.

You talked about the need to reorient the nature of our spending away from consumption. You also said away from government spending, toward investment in capital spending. Is that correct?

Mr. **Behravesh**. That is correct.

Senator **Sarbanes**. The question I have: Is not certain parts of government spending in fact spending on investment in capital, and wouldn't it be more accurate to state that we should reorient the nature of government expenditures rather than to say flatly, move away from government expenditure?

Mr. **Behravesh**. I accept that.

Senator **Sarbanes**. In other words, education, research and development, training programs, physical infrastructure—the road network, the port network and so forth—represent investments and are actually very important for the strength and viability of the economy, are they not?

Mr. **Behravesh**. I couldn't agree with you more, Senator.

Senator **Sarbanes**. Senator Proxmire.

Representative **Scheuer**. Mr. Chairman, just before Mr. Behravesh goes——

Senator **Sarbanes**. He is not going quite yet, but gc ahead.

Representative **Scheuer**. Just a quick footnote on your footnote to his remarks.

We are talking about getting employment down, can we reach the 3 percent standard in the Unemployment Act? A major, if not a critical barrier to moving unemployment down is the question of structural unemployment in America and the question of illiteracy.

We have just had a set of hearings of 8 or 10 days, and it is a desperate problem. We found out that maybe 25 percent of our labor force is either illiterate or functionally illiterate, as jobs requirements become more and more sophisticated, and as overcoming illiteracy is a critical factor in moving unemployment down.

Unless we increase the level of literacy and massively improve our education system, particularly in areas like New York City which truly need to be restructured, I don't think we are going to be able to do much about structural unemployment. And that is the key to moving unemployment down.

Senator **Sarbanes**. Let me observe that Congressman Scheuer has just concluded chairing a series of hearings on education, retraining, and illiteracy. It was a very fine set of hearings.

Mr. **Behravesh**. To clarify the record, I completely agree with you that there are a lot of structural policies we can enact to reduce the structural unemployment rate, and we should do them as a society. I do not mean in any way to minimize that need.

Senator **Sarbanes**. Senator Proxmire.

Senator **Proxmire**. Mr. Eisner, your presentation was excellent. But I want to read the first two paragraphs in 30 seconds, what you wrote, because I think that is even more devastating than what you said.

You said, "Whatever the ills of the economy," I mean as far as getting rid of an illusion we have, whatever the ills of the economy, real or imagined, the news media, most politicians, and a fair amount of the economics profession are quick to point to the culprit: The Budget Deficit." No matter that few appear to know or care precisely what deficit they are talking about or how it is measured. No matter that few bother to explain in terms of a relevant model just how government deficits may be expected to impact the economy. No matter that few offer any empirical data to sustain their judgments.

> So budget deficits cause inflation. Budget deficits raise interest rates. Budget deficits bring on the trade deficits. Budget deficits crowd out investment. Budget deficits are an irresponsible mortgage on the future. And, most recently, budget deficits caused the stock market crash. Is there truth in any of these assertions?

Well, I would agree with most of what you say, but there is something that you left out here that I would like to ask you about. I agree that we don't measure the deficits properly, although it is extraordinarily hard to get a fair measure. What do we do about aircraft carriers and submarines? Are they an investment? They certainly don't bring in any cash. They cost throughout their life. They cost enormous sums, far more than the cost to produce them.

And then when we get something like education, education is fine, vo-tech education, overcoming illiteracy and so forth, but education again is very hard to measure. Nobody that I know of has ever tried to measure it in an effective way.

I agree wholeheartedly with your argument that the stock market goes up with deficits, not down. And as you said so well, it went down at the time when we had a one-third cut in the deficit. Then it almost went through the floor.

But the one area that concerns me about all this is the enormous interest burden that has been built up. When I came to this body, the cost of interest on the national debt was $5 billion a year, net. The net interest cost today is $145 billion, about 29 times as big. Now, that is a cost we can't avoid, we can't stretch out, we can't cut, we have to pay it, pay it on time, and pay every penny of it. And it is getting bigger all the time.

I seems to me that this is something that we have to be deeply concerned about. I don't know how we can feel that the deficit can go on, as you say. You would project it on at 6 percent of the nominal gross national product, and that would build up a fantastic national debt over time, and a huge interest burden that would be a great burden on our children and grandchildren, wouldn't it?

Mr. **Eisner**. No, sir. I appreciate the points on which you agree with me, and I think you made some of these points very well.

Let me answer the last point first, on the matter of interest payments and the debt. Remember if the debt is growing at 6 percent and national income is growing at 6 percent, the interest payments will be a no larger portion of the national income 20 years from now, 50 years from now, than they are now. So there is no extra burden by having the debt growing at this constant rate.

The interest payments, while they loom large in the deficit, again are critical in the matter of measurement. The interest payments are so large in part because we are counting nominal interest payments. We are not recognizing that a lot of those interest payments are simply repayment for loss of capital; that is, they are repayment to the holder of the debt for the amount that his bonds are going down because of inflation.

So that an economist looking at the real interest cost, which would go into a proper measurement of the deficit, would knock down that $130, $150 billion by—oh, would probably knock it down by about $60 or $70 billion.

But the next thing to remember is that with all the talk about the interest payments, they are not really critical. I think what you would have to worry about as to whether the Government budget is too large is what impact it is having on the economy. Interest payments mean money going out; money comes in then either in taxes or it comes in through an inflationary tax. What you want to wonder about is the Government's command over resources, what it is spending on roads, what it is spending on defense. That is where it is having a direct impact on the economy.

The interest payments are to a very considerable extent like a transfer payment. They are something of a wash.

Now, on the whole matter of capital budgeting, on the matter of expenditures, I suppose not as an economist, but as a human being and a citizen, I think we are spending vast amounts of money in the Pentagon in aircraft carriers and other things which are a waste, which may jeopardize our security. But, as an economist, I would have to say that anything like an aircraft carrier or Star Wars, much as I may oppose it, if they are anything, they are an investment in the future. It makes no sense to charge that as a current expense, anymore than any business would do it.

That is not to say I approve of those things. But in terms of proper accounting, education, any hardware that is going to pay off in the future, research and development, are investment-type expenditures.

Senator **Proxmire**. Let me just interrupt you to say that there is no payoff in the future in any kind of an accounting sense. We don't get any income at all. It costs money, and there is some different judgment as to whether or not it contributes to our national defense. I don't think they do, but some people do.

But to say that whatever it is, as long as we build it and hope to use it in the future, there is a return, and therefore we shouldn't charge it off, doesn't make any sense to me.

Mr. **Eisner**. No. You have to recognize that the Government, unlike a private business, is in the business of essentially giving away its services free. It gives away defense services to all of us, if they are worth anything. It gives away educational services and the like.

You, therefore, have to measure the payoff for the Government in terms of the national income of the economy. If you don't do that, then none of these expenditures is justified. Each expenditure has to be justified on the basis of whether it is worthwhile: the Star Wars, the aircraft carrier, the education.

In an accounting sense, though, a meaningful accounting sense, they have to be recognized as investments. That doesn't justify them necessarily, but they are not then of the same dimension as something which is handing food to people currently or providing the current services, whatever.

Senator **Proxmire**. Now let me ask Mr. Kellner if he will comment on the first part of the answer that Mr. Eisner gave me with respect to the notion that we don't really have to worry about the increase in interest cost because it will go up proportionately with the GNP, with the nominal GNP at least.

Mr. **Kellner**. Senator, you have read my mind as I have been scurrying around writing notes here.

I think what is significant from the point of view of congressional policy is that the interest cost has gone up as a percentage of the budget deficit. As you pointed out, last year the Government paid out nearly $145 billion in interest at a time when the budget deficit was $148 billion. You are rapidly approaching the point where the interest cost will exceed the budget deficit. And at today's relatively high level of interest rates and 12-digit deficits, we become-increasingly constrained as to how you can get the deficit down if more and more of what is the deficit represents interest costs.

Second, because we are not only a domestic debtor, but a foreign debtor, we can no longer say let's not worry about it, it is money we owe to ourselves, because we don't owe it all to ourselves anymore. We are beginning to owe it more and more to foreigners, and that represents money that is, of course, leaving the country.

So I think one should look at it in those two contexts, Senator.

Senator **Proxmire**. Mr. Kellner, I would like you and Mr. Sinai to follow up on one other question. I only have time for one other question. This relates to the fact that you flatly predicted, as I understand it—correct me if I am wrong—that we would probably have a recession this year. Mr. Sinai said probably not this year, but probably in 1989.

My question is this. We have had, as somebody said, 35 recessions over our history and certainly since World War II we have had recessions periodically. Mr. Eisner indicated that he thought our top priority should be preventing recessions, and he speaks for many, many people who say that.

It seems to me that recessions are part of a free economic system. You have to expect them; we are going to get them. We should try certainly to minimize the pain that they impose, which is terrible on people, particularly low-income people and people whose jobs are marginal. But we have to face the fact that this is part of a free enterprise system, it seems to me.

Now, what is the answer?

Mr. KELLNER. I couldn't agree with you more, Senator. It is a cost that we have to pay for having a free enterprise system. Perhaps in Russia or in other centrally planned economies, they don't have recessions, but they don't have very high standards of living either.

I would also agree that if we see a recession coming, we should try to minimize it, although from the macro or top-down level, it would appear, given the present circumstances, that any attempt to minimize the recession, such as widening the budget deficit or an easing by the Federal Reserve before it becomes apparent to the markets that we are in a recession situation, might turn out to be counterproductive.

But, following up on what Congressman Scheuer and several other people have said here, I believe at the micro, or beneath the surface level, there are ways, there are steps that can be taken to minimize the pain of recession on those least able to bear it.

Senator PROXMIRE. Mr. Sinai.

Mr. SINAI. Well, recessions have periodically always been part of our business cycle landscape in this country. It is only in Japan that there is never, or hardly ever, a recession. Somehow they manage to do it; why can't we? So I would not subscribe to the inevitability of it, and again and again offer my own prescription of how to avoid it this time.

I do have one other comment, which is on the deficit. I think the two deficits, the budget deficit and the trade deficit, at these levels, which you will see if you look at the charts in my prepared statement, are really very ahistorical. They are very new in our economic history. You will not find this combination of deficits, borrowing by the Federal Government and borrowing abroad, in the history of our country.

You will find it on the indebtedness side before 1916 when we were developing and building infrastructure, capital structure, but you will not find it in the sense that we have been borrowing to support current spending. And it has extraordinary implications for our economy and our people, which go far beyond what it does on a short-term basis to interest rates and the stock market and whether it creates a crash or not.

I happen to think it was a generic part of what determined the crash, and I am one of the few people, as Mr. Eisner knows, who has done a good deal of empirical work, model work, theoretical work on the subject.

The problem for our country is, if you look at the dollar, the dollar now is very important for our markets and for our economy, its decline does change the economic and political landscape of the world. We are the world's greatest debtor. Japan is the world's greatest creditor.

As a lender to us, we are the borrower, and we are increasingly credit risky, and foreigners are increasingly skeptical of what goes on in Washington and our ability to deal with this problem. The lenders demand more in return for lending us money, as any lender will do. And when they get fearful of the losses on paper debt that they hold, they then move into direct foreign investment—this is exactly the way the flows of funds are going—and buy land, real estate, parts of businesses, set up production shop in this country. That is all part of the economic reaction. In fact, it will help our trade deficit, our trade statistics. But I am not sure in the longer run it will work for this country.

There is no country ever a debtor that has been an economic and world political power in the history of the world. Those who are the creditors have the money, can make the investments, they are the power. I am not sure that over a long period of time that this set of circumstances that is in prospect will set well politically in our country. It has very, very substantial long-term ramifications that go beyond economics.

Mr. KELLNER. By the way, to answer your question about interest relative to the GNP, as of the third quarter of 1987, interest paid by Washington on its deficit was 3.2 percent of GNP, whereas of the fourth quarter of 1983, a growth year, interest was 2.8 percent of GNP. Now these may seem like small numbers, but as you can understand, just by growing the way they are, they do represent a significant increase.

Senator SARBANES. Mr. Sinai, I might just point out that in our report back in August, "The Economy at Midyear," we said no country has ever managed to be a great power and a great debtor at the same time.

Mr. SINAI. I took my quote from you. Or you may have taken it from me and my testimony. I won't get into those kinds of matters.

Senator SARBANES. Congressman Scheuer.

Representative SCHEUER. Thank you very much, Mr. Chairman.

It has been a marvelous hearing and I wish I could stay all day and ask all of you all the questions that come to mind.

I would like to emphasize the importance to the country of reducing the budget and trade deficits. The trade deficit seems to be dropping a little bit. But the budget deficit remains almost out of control.

Mr. Eisner, you have told us that we shouldn't be too concerned about the budget deficit. I don't want to put words in your mouth. The feeling I get from you is that it is not of primary concern. But I listen to Mr. Sinai telling us that in effect, in a matter of a couple of years we have changed from the world's greatest creditor country to the world's greatest debtor country. And how can we stay a first-class economic power with this growing burden around our necks?

I have heard several of the witnesses say that we should not try and protect the falling dollar. Let it find its own level.

Is there some level, with the budget deficit as given, is there some level which the dollar might reach, where the foreign creditors will say it is not enough for you to raise interest rates; we don't want to hold your paper. We don't want to hold your marker. We don't trust this economy. We have had evidence of the incredible lack of faith in our ability to get our act together by chief of state after chief of state after chief of state lecturing us publicly about how important it is to get a handle on that budget deficit.

Is it possible that as the dollar falls, at some point foreign creditors who are holding an increasing percentage of our debt, are going to say, pay us off, we are cashing in our chips; we don't think you will get a handle on your state of economic disarray. So give us our money.

And what happens when the Germans and the Swedes and, above all, the Japanese cash in their chips? I don't want to put words in any of your mouths, but the question I have is, aren't there reasons for us to work hard getting our budget deficit under some kind of control, perhaps not for purely economic reasons, Mr. Eisner, that you point out, but to establish our international credibility and the kind of trust that is necessary for foreign creditors to want to continue to hold onto our paper and not just dump their dollars which, in my opinion as an untrained horseback economist, if they ever decide to dump their dollars, we are in deep sushi.

Mr. **Eisner**. I would like to clarify a few things. I perhaps will stay off the budget deficit for a moment. I tried to make clear that it is really not out of control. In my prepared statement, I point out that budget deficits, bigger deficits have been associated with greater growth in GNP. I think critics have the wrong side of the argument in saying that the economy is a wreck because of the budget deficits. The facts speak otherwise.

Since the budget deficit soared, the economy came out of recession, has had a substantial recovery. You can't keep crying the sky is falling, the sky is falling, budget deficits are a disaster.

I can show you in terms of measurement and theory why they are not, and the facts are clear and they are going to be clear to the American public. I might suggest that politicians who keep yelling about the deficit are going to find themselves ignored. People are going to look at the state of the economy, which is what you should look at.

Now, on the matter of foreign debt, there is really a lot of misunderstanding on this. We say we are the world's greatest debtor nation. I hope to do some further research and have some papers that question a lot of this. It is a question of how you measure your assets, how you measure liabilities.

The fact is, we are not a debtor nation in the sense that people may think of it; that these figures are not telling us we owe money, we have to pay interest. The portion of the Federal debt that foreigners hold is still relatively small. We are a debtor nation, if we are, simply in the sense that we have less in the way of assets abroad of all kinds than foreigners have of assets here. They may be motels, shopping centers, stock, bonds, or anything else.

Now, when you begin to see that, you realize something else that I again I think the press quite misses. If foreigners try to pull out, they can't pull out. There is no way that foreigners can get their money out. When they try to pull out, all they do is drive down the value of the dollar, and if they drive down the value of the dollar, eventually the dollar will get to such a point that we are exporting more than we are importing. In that way only do the foreigners pull out.

The way that foreigners get in is simply because we have a current account deficit. And when we have a current account deficit, automatically they accumulate dollars because if we are paying for these Mercedes, these Toyotas, they are getting dollars. Therefore, they have invested in the United States and we become a debtor nation.

Now, the next question that I think Mr. Sinai was pointing out is what will they do with those dollars? Will they keep them in checking accounts? That is dumb. Will they invest them in certificates of deposit? Will they invest in securities? Will they buy motels? And they have some flexibility in what they do there, and that, of course, can affect our interest rates.

But again, the Federal Reserve has prime control of our interest rates, and I warmly endorse what Professor Blinder said. For God's sake, let's look at the economy and not be beholden to the dollar. The dollar should be allowed to go where the free markets will let it go.

Representative **Scheuer**. I think it was Professor Blinder who said we are spending $150 or $160 billion a year more than we are producing. We are on a spending binge; we are overspending on cars. I am not quoting Professor Blinder any more. We are overspending on homes. We seem to be unwilling to tax ourselves at anything like the rates that other countries tax themselves.

We had testimony before this committee a couple of months ago by distinguished people who recommended that we increase the gasoline tax 25 cents last year. They said this year. That was 1987. Twenty-five cents in 1988, 25 cents in 1989. That would produce close to $75 billion a year.

European countries that are not in anything like our state of economic disarray, many of them with a higher standard of living and higher wage rates, they tax themselves at twice the rate that we tax ourselves, per gallon equivalent, about $1.50.

We seem to be unwilling in our time of economic crisis in terms of the budget deficit even to defer a couple of years the scheduled tax reduction for the very wealthy.

Doesn't this indicate to people abroad that we simply don't have the strength and the will and the character to get our economic act together?

Mr. Sinai.

Mr. **Sinai**. The international investor's perspective is very much the one you described. Of course, you see that in the falling dollar. If they didn't have that perspective on how they view the future of the U.S. economy and the political process, you wouldn't see the dollar declining, because that view is part of what determines the dollar, not just the flow of the current account deficit nor just the money flows. There is a confidence factor in the question of where moneys are allocated.

It is, I think, correct as Professor Eisner is pointing out, that if you measure our foreign indebtedness position, the numbers that are produced overstate them; that if you were to do a market value analysis on the assets and liabilities and if you were to value gold appropriately, that would virtually wipe out the net indebtedness position. But the trend is very clear. And it is that so long as we are running the deficits we are running, debt has to accumulate. Nobody can deny that. That has to happen. The issue is, does it accumulate faster than national income? And, my own calculations say yes.

On the issue of interest rates—I don't want to get into too much of a debate here among all of us because that may not help you too much on interest rates—the Federal Reserve does control short-term interest rates. World markets control long-term interest rates. Longer term security values in fixed income markets, government and corporate securities are very much part of the flow of funds now in the whole world. And, the Federal Reserve really cannot control those markets. Should foreign investors decide to dump their bonds, as you say, perhaps to bring liquidity home in time of trouble, we would have, and have had spikes up on interest rates.

As for the deficit spending, deficit spending is a big help to the economy in the near term and the short run and has had a major impact on the performance of our economy in these years. But deficits do borrow from the future, whether you talk about an individual or a company or a country. If we don't find some way to save more in that future, then someday the debt catches up with us. It doesn't have to, but someday it can.

Representative **Scheuer**. Thank you, Mr. Chairman.

Senator **Sarbanes**. Senator Melcher.

Senator **Melcher**. Thank you, Mr. Chairman.

The Republicans out on the huskings are often saying that inflation is down, interest rates are down in the past 7 years. Isn't that because commodity prices dropped with the very strong dollar?

Mr. **Blinder**. I think that is one factor. But a much larger factor is that we had a whopping big recession in the early 1980's and that beat down inflation by a good deal more than these other factors would have.

Mr. **Eisner**. I have to disagree with my good friend Alan Blinder. I think it is overwhelmingly true that inflation is down because the basic cause of the inflation, the huge runup in oil prices and commodity prices not only ended but reversed itself.

I think there has been an awful lot of repetition that inflation has somehow been due to excess demand, to tight labor markets, as has been questioned somewhat here. We have not had that kind of inflation I would say in at least 20 years, since the Vietnam war. In fact, we hardly ever have inflation due to tight labor markets and excess demand except during wars. And the huge inflation we had in the 1970's into the 1980's was very clearly a supply shock inflation, overwhelmingly from the oil prices. When they stopped going up and started going down, the inflation went down despite a huge decrease in unemployment from 1982 on.

Again, I don't know why people don't simply face that and harken to it.

Senator **Melcher**. Mr. Sinai, do you agree with Mr. Eisner or Mr. Blinder?

Mr. **Sinai**. On the improvement on inflation, I think there are a number of factors. I would rank No. 1 the recession and the slack, the tremendous recession-depression period of the early 1980's and what that did to product markets and labor markets.

No. 2 is kind of a tossup. The falling dollar is a candidate. I tend to attach greater weight to the dollar effect on inflation than most of my professional colleagues do.

No. 3, we have had declines in oil and commodity prices.

No. 4, there has been intense worldwide competition in product and labor markets, a new global kind of competition that has had an impact. So I would say all of those in that order have contributed to give us the much lower inflation.

Senator **Melcher**. Is it also true that the decline in commodity prices and the strengthening of the dollar brought on the recession?

Mr. **Sinai**. The strengthening of the dollar had a lot to do with performance on commodity prices.

Senator **Melcher**. Performance on what?

Mr. **Sinai**. The lower inflation for commodity prices. People will analyze that as if it were slack in world economies that pushed commodity prices down or a spillover from lower oil prices that did it. I tend to put a fair amount of weight on the rising dollar as a source of pressure, downward pressure on commodity prices and on oil prices even.

Senator **Melcher**. Now that the dollar has come down and may go down further, and commodity prices are going to come up or are coming up—I notice some of you are quoting prices of $15 for oil—I think it is $18 and could go higher—aren't we going to have to pay the piper then in terms of inflation, higher interest rates?

Mr. **Kellner**. Senator, on the question of interest rates, while they have come down in nominal terms, the real interest rate admittedly is a calculation that economists can't totally agree on, but by a simple calculation of just subtracting the latest 12-month change in consumer prices from whatever the nominal rate is, you will find that real interest rates, short term, intermediate and longer term, are still much higher than they historically have been in the 1960's and in the 1970's, lower today only than the peak rates reached in the early 1980's.

Second, as far as the dollar coming down is concerned, reigniting inflation, it is a fact that through the third quarter of 1987 compared with a year earlier, prices of imported goods as measured in the gross national product accounts have gone up 10 percent, or more than twice the overall Consumer Price Index.

As I indicated before, commodities, industrial raw materials, have climbed by 40 percent since August 1986. And as my prepared statement indicates——

Senator **Melcher**. Wait a minute. Was that 40 percent including energy?

Mr. **Kellner**. No, sir.

This is the Commodity Research Bureau's index of 13 industrial raw materials, excluding oil and excluding precious metals. It is calculated daily. It is an unweighted geometric mean of such items as lead, zinc, copper, tin, scrap steel, print cloth, wool tops, hides, but not oil and not precious metals. And this index has gone up approximately 40 percent from the low point of August 1986. Before the market crash, it was at its highest level since late 1980, not the all-time peak, but getting very close to it.

Now, as my prepared statement indicates, there is a chart in there showing how the producer price index for intermediate materials, excluding food and energy—this is a calculation by the Labor Department, not by us—has been going up at an accelerating rate for six quarters in a row through the fourth quarter of 1987.

There are inflation pressures, I agree with Professor Eisner, not necessarily labor caused, but nonetheless there are inflation pressures in the pipeline. They are being bottled up at the final level, at the consumer level, because consumer demand is so weak, because in real terms retail sales have been declining throughout most of 1987.

But once the economy gets back on a growth track, whether it is this year or whether it is next year or the year after, I would expect to see inflation pressures reemerge.

Senator **Melcher**. Thank you.

Senator **Sarbanes**. Professor Eisner, I want to address this deficit and debt question. I guess the President of the American Economic Association ought to take on, as a responsibility, questioning the conventional wisdom, which you have obviously been doing here today. And I think it is important to point out with respect to the deficits, first of all, that you are talking about a government deficit. You have to look also at what State and local governments are doing.

Second, we don't have a capital budget at the Federal level, which I think is very important for people to understand. As a result large expenditures are made which in any other budget would be treated as a capital item and taken off the operating budget, but here they are included, and then they reflect in a "deficit" figure.

And, of course, the cyclical impact on the deficit. If the economy goes soft, the deficit will automatically go up, because revenues will decline. People will not be working, you won't get the taxes and the revenues, and you will have to make payments.

And then your point about correcting it for inflation. You then said, though, that if the national income is growing at the rate the debt is growing, the burden of the debt is not increasing; is that correct? This is an important point and I am glad it is being emphasized here.

Mr. **Eisner**. That is right. The burden or any other economic impact is not increasing.

Senator **Sarbanes**. But that is where we are right now. Now, in 1970, Federal debt to GNP ratio was about 0.40. Forty percent. And it then went 0.39, 0.38, 0.35, 0.34, 0.36, 0.37, 0.36, 0.35, 0.34. In 1980, it was at 0.34, in 1981, at 33 percent. And since then it has moved up and is now at 52 percent.

So it seems to me that even if we accept your analysis, that if we held it now where it is, which is 52 percent, that is a significant runup from where it was.

Now, the only time I can recall it being at this level, I guess, would have been World War II. Then it was much higher and we brought it back down. I am concerned about that. In other words, I think it is important to recognize that families and businesses incur debt and it often represents a wise decision. You buy a house. You make a judgment to buy it now and then to use it over your lifetime. You have an income stream to pay it, and that represents a sensible decision. Business does the same thing with investments.

So you have to look at what you are spending it on and what the impact is on the economy. But as a general proposition, aren't you better off if your debt to GNP ratio is lower, rather than higher, assuming you are not, by doing that, failing to make the kind of investments that lead to proper growth in your economy?

Mr. EISNER. There are three observations that I have.

First, certainly the debt to GNP ratio has risen very substantially in the last 7 years. However, as you point out, it had fallen very substantially before. And it is at least debatable whether you are better with a higher or lower one. If it is 52 percent now, it was about 116 percent at the end of World War II and only went down gradually, essentially with inflation, not with budget surpluses, over succeeding years.

What is desirable for that ratio? There are two considerations. One you just mentioned, which is very important, and that is it probably is not feasible to lower the debt-GNP ratio for the Federal Government any more than it is for a private company, without giving up a lot in the way of capital spending, which is likely to injure the economy. As you pointed out well a few minutes ago, the matter of investment is not merely private investment, but public investment.

Senator SARBANES. Let me just interrupt you there.

Aren't you giving some of it up by widening the deficit through tax cuts to permit private consumption, some of which goes into noninvestment areas?

Mr. EISNER. Exactly.

That is the third point. If you could say we have government spending, government capital spending given, including education, research, infrastructure, now should we finance it more or less by taxes or by borrowing? Then you come to the critical third question: What is the state of the economy?

And I think the basic place I differ with so many of my colleagues on this is that they are all going around assuming that somehow we are at or near the—what I consider pernicious—so-called natural rate of unemployment, and therefore they say, well, if you cut taxes, that means people have to consume more. And since the economy cannot produce more because we are at the so-called natural rate of unemployment, you can't get anybody more to work, more consumption has to mean less investment.

The fact is that simply has not been true. It is in my prepared statement and I emphasize it over and over again, the historical record is that when we have had bigger budget deficits, we have had more consumption and more investment as well. And the reason is not far to seek. Mr. Kellner can tell you about it, or anybody else. When the economy is more prosperous, when there is more consumption, businesses invest more.

If we go out and buy automobiles, General Motors is going to invest. If we don't buy automobiles, they won't. So that the fact is that while we have not apparently generally had full employment, we have had excess capacity, and therefore cutting taxes has tended to stimulate the economy and give you more consumption and more investment.

I will quickly grant if you get to a state where there is no more that can be produced, then raising consumption has to lower something else. That is a matter of arithmetic. It might in fact simply lower our next exports. It might mean that the foreigners will subsidize our investment. But that depends upon getting to a situation where you can produce more.

Senator SARBANES. But doesn't the failure to work the deficit down, as we have an economy working fairly well in terms of its unemployment levels, then restrict our ability to address the situation if we have an economic downturn and move into a recession period?

Mr. EISNER. That is a political constraint, and maybe I have to recognize that. You know, the fact is if we do have a recession, I would say we should have easier monetary policy and easier fiscal policy. Remember again that the budget deficit, with all the complaining for good or for bad, is substantially down, is down even in absolute terms, but is down all the more as a percentage of GNP, which is the way it should be measured.

Senator SARBANES. Which should not have been done.

Mr. EISNER. It should have been done with easier monetary policy, but it should be done. I do say that the budget deficit should come down somewhat, along with an easier monetary policy. But it shouldn't come down that much unless you could be sure you have enough easier monetary policy to keep the economy moving, and it certainly shouldn't come down a lot in a period where you are worried about moving into a recession.

Senator SARBANES. That is a reasonable point, which leads to this question that I put to all of the panel, and then you can pick up on the other points, too.

Is there a danger in current circumstances that tighter fiscal policy would provoke a recession, which in and of itself would have the counterproductive result of increasing the deficit? In other words, a policy taken to lower the deficit, because it might trigger a downturn in the economy, would in fact result in increasing the deficit? Are we at that point in the current circumstances?

I would like all of the panel to comment on that.

Mr. SINAI. If you cut the budget deficit by $50 billion, some of that would be lost in weaker growth, but the deficit would not go down by more than $50 billion. It would not go down by as much as the $50 billion that was cut.

Now, on this issue, my view is the answer is yes. There is a danger if all that is done is budget restraint, whether it is given the state of the economy now, another $20 or $25 billion, or at times the $50 billion that I have suggested, which is why there is only one way to deal now at this time; it is with the structural budget deficit. That, I think, is the deficit to get rid of, not the cyclical one. That was the problem with Gramm-Rudman-Hollings. It dealt with the cyclical deficit, unified budget deficit, not the structural budget deficit.

Any kind of budget restraint at this point has to be matched quickly by at least a rather large easing of monetary policy and probably, in addition, we have to have our trading partners stimulate their economies as well because of the worldwide restraint of that kind of action. Budget restraint alone is a dangerous thing to undertake at this time.

Mr. **BLINDER**. Let me take your last question first and then come back to what we were talking about a minute ago.

I think the danger of too tight a fiscal policy right now is remote. It is conceivable that we could tighten up on the budget so much as to kick the economy down a flight of stairs.

Representative **SCHEUER**. That it would do what?

Mr. **BLINDER**. It is conceivable that we could do that. One can imagine that. But I can't imagine this Congress doing that. The history of the last 5 years has been one of inadequate tightening of fiscal policy, of an absolute fear of raising taxes, which should have been done long ago. Especially with an election coming up in 1988, and with the Federal Reserve in some people's minds targeting nominal GNP growth, and therefore making up for whatever the fiscal stance is, I think the danger of too big a dose of fiscal contraction, though in principle possible, is extremely remote.

Now, in terms of what should be done about the deficit and why, I think you put your finger on the point in looking at the behavior of the debt-to-GNP ratio. The kind of norm that Bob Eisner was suggesting will stabilize the debt-to-GNP ratio at whatever level it happens to be today. As you point out, by those numbers it is now 0.52, whereas a few years ago, when Ronald Reagan became president, it was 0.34 or something like that.

A lot of people think it would be better to go back some way toward the 0.34. Who knows where? Nobody, really. The level of the debt relative to GNP is relevant to a number of things, such as where real interest rates will be. The optimal amount of debt relative to GNP depends on a lot of things, including, importantly, what the Government does with the money it spends.

We know what the Government did with the money, so to speak, in this case. It pushed the debt-to-GNP ratio from 0.34 to 0.52 by cutting personal taxes and kicking off a consumption binge. So consumption relative to GNP rose greatly. That did not generate any revenues to pay the interest——

Senator **SARBANES**. And it kicked up military spending.

Mr. **BLINDER**. Well, it kicked up military spending and took it out of civilian spending. Government purchases relative to GNP didn't change much. There was a substitution of military for civilian spending. The military budget did go up. But fundamentally it was a tax-cutting strategy to raise consumption relative to GNP. Now, Bob Eisner says that doing that boosts the economy. Well, it does. It happens, however, to be a fact that when Ronald Reagan leaves office after 8 years as President, the 8-year growth rate will be roughly the same as the previous 8 years—probably the same as the previous 16; I am not sure about that. So, on net, it is not at all clear that over a long horizon like 8 years the tax cuts did a lot for aggregate economic growth.

What it has done a lot to is the allocation of GNP toward consumption, away from exports, and toward the military. And those are things that some people think ought to be changed.

Senator **Sarbanes**. Mr. Kellner.

Mr. **Kellner**. I think what the markets are looking for, Senator, is a long-range plan for reducing the deficit. Now, we do have Gramm-Rudman-Hollings but, as you know, that has been modified and the markets simply do not believe that the Congress and the administration are able or willing to come up with a long-range plan to bring the deficit down, to what number I am not prepared to say. But the notion of bringing the deficit lower, besides reducing that debt share of GNP that you refer to, would be also to reduce our reliance on foreign funds, which as you know is now a factor in financing our deficit, and also to free up resources for the private sector to grow, without the Federal Reserve having to create these extra resources and thus run the risk of monetary-induced inflation.

So I would agree with my colleagues that the deficit in the current fiscal year should not be reduced immensely because that could run the risk of turning a soft economy or a mild recession, if you will accept my forecast, into something worse.

But I do believe that over the longer term, a credible deficit reduction plan is necessary.

Senator **Sarbanes**. Let me just ask this question.

On January 8, this committee received testimony in the morning that the civilian unemployment rate was 5.8 percent. That is as low as it has been since 1979. It is the lowest the Reagan administration has been able to get it. That afternoon the market dropped 140 points.

Now, what is at work when what should be regarded as good economic news triggers this kind of negative reaction in the market? And I am prompted to ask you that question because you prefaced your previous point by saying, "What the markets are looking for."

Mr. **Kellner**. These same markets, Senator, were looking for an increase in employment only about half as much as that which actually took place. They were not focusing on the unemployment rate per se. The expectation was that it would be little changed one way or another.

But in seeing this sharp increase in employment, the markets became fearful that the latent inflation pressures which we discussed earlier might surface, for whatever the reason. That immediately affected the bond market, which is very sensitive to inflation and the expectation of inflation. Bond prices went down, interest rates went up, and that in turn fed back into the stock market.

So as a shortrun reaction, this is why the stock market fell the way it did on that particular day.

Mr. **Eisner**. I would just add one ingredient to that which I think is much too often missed. How the market reacts from day to day, you know, everybody is wondering what everybody else is thinking, and people try to jump, and it causes the fluctuation. But underlying is the notion when the unemployment rate goes down, the Fed is less likely to have an easy monetary policy. It is more likely to tighten, because it has what I would call misguided fears of inflation or because it feels it doesn't have to worry that much about a recession.

Therefore, if you are sensible and rational, you say not because of the underlying economic situation, not even because you are at all sure it will cause inflation. In my prepared statement, I point out it is very difficult to find a relationship between budget deficits and inflation. The relationship between unemployment and inflation has jumped all over the map in the last 10 or 15 years.

But if you have the notion that with the unemployment rate down, the Fed may now be tighter, then you want to beat the market and figure that means interest rates will go up, and if interest rates go up obviously you try to sell your bonds immediately. If they do go up, you try to sell your stock because they will move in sympathy.

I think very frequently we misread, and the journalists, the TV media, keep failing to point out that the market is reacting to what it thinks is going to happen and it is not necessarily the trade deficit itself, the unemployment rate itself, it is what is going to happen to interest rates; and what is going to happen to interest rates reflects the policy reaction that is expected to what they are seeing about the trade deficit, the dollar, or the unemployment rate.

Mr. **Sinai**. Well, I am sure you don't, and I would encourage you not to make policy on market reactions, especially on good news like that.

Markets sometimes, though, show symptoms of underlying problems because they are very forward looking, in expectations of those problems, and they tend to discount them, and a lot of times the problems don't actually come to pass. It is just that risk-averse investors don't want to be there if the problem should come to pass.

I think you have to look from a policymaking view through the market reactions and ask what is bothering all these investors. Now, I can tell you what is bothering these investors. It is the worry about uncontrollable inflation. It is the worry that the budget deficit is part of that, a structural deficit that runs 3 to 4 percent of GNP as you look out for the next 3 or 4 years under current prospects and policy on the fiscal side, 3 to 4 percent of GNP on a structural budget deficit. That is the highest in our history.

When we get to the full-employment zone, we almost always have eliminated the cyclical and the structural budget deficit.

And so I think the concern over what that means for our society in the long run in inflation is well taken by people in the financial markets as they sell either short or long run, and overseas investors have the same concern, asking whether the United States will do as well on inflation as Germany does, as Japan does. And if they think we won't, and that we can't keep our house in order, then they will buy Japanese securities and they will buy German securities and securities in the U.K., and the United States is then number four.

Mr. **Eisner**. Allen, we had those larger structural deficits during the years of the biggest runup in stock market history. I mean how can we suddenly say now when the deficit is considerably down, that the market goes down because of worry about the deficit?

The market goes down because people are worried the market is going to go down. The question is what is ultimately triggering that fear? They can rationalize, give you various stories, but it is not at all clear that you can trace it to the budget deficit.

Mr. **BLINDER**. I would just say that I agree with the analysis that says that the events of that day were probably due to morbid and unjustified fears of rising inflation—due to a one-tenth of 1 percent drop in the unemployment rate—which perhaps triggered some expectation that the Fed was going to tighten up.

But you want to remember that traders care about what is going to happen to interest rates in the next 15 minutes. And I just don't think that is very important to Members of Congress. It is not very important to me.

Senator **SARBANES**. Congressman Scheuer.

Representative **SCHEUER**. It has been a wonderful hearing, Mr. Chairman. I really enjoyed it very much. And I congratulate you for holding it and I congratulate the witnesses for their splendid testimony.

Senator **SARBANES**. Gentlemen, thank you very much.

I will just close with this final observation. I am becoming increasingly concerned that we have viewed the policy questions too much in an either/or context. There have been periods, not too long ago in our history, when we had both low unemployment and low inflation. I think you can work a rationale out that if you can get over the threshold—and I think Mr. Sinai is putting his finger on it when he talks about having to balance a lot of factors, including what is happening abroad and how the United States interrelates—but if you can get over that threshold, you can have a higher standard or goal that may be reached than we have tended to accept in recent years.

So the good news about unemployment doesn't necessarily lead to the conclusion that inflation is going to take off and that you are going to have to have a tight monetary policy.

I worked for Walter Heller. Of course, that is now a long time ago. But we had low unemployment and low inflation. In fact, we were worrying about figures that nowadays would be regarded as just wonderful if we could achieve them.

I realize that the nature of the economy has changed. But it seems to me we have lowered our sights in terms of what might be possible or what might be achievable, although I concede it would take a lot of skill and a considerable amount of luck to pull it off.

We thank you all very much. It has been a very helpful panel.

[Whereupon, at 12:20 p.m., the committee adjourned, subject to the call of the Chair.]

THE 1988 ECONOMIC REPORT OF THE PRESIDENT

FRIDAY, FEBRUARY 19, 1988

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 1:05 p.m., in room SD-628, Dirksen Senate Office Building, Hon. Paul S. Sarbanes (chairman of the committee) presiding.

Present: Senator Sarbanes.

Also present: Judith Davison, executive director; and William R. Buechner and Christopher, J. Frenze, professional staff members.

OPENING STATEMENT OF SENATOR SARBANES, CHAIRMAN

Senator SARBANES. The committee will come to order.

We expect some additional members shortly, but I think in deference to everyone's time we ought to get started.

Today the Joint Economic Committee resumes its annual hearings in conjunction with the Economic Report of the President for 1988. We are very pleased to welcome the Chairman of the Council, Beryl Sprinkel, and his two colleagues on the Council, Thomas Gale Moore and Michael Mussa, who will present this year's Economic Report of the President to the Joint Economic Committee.

The Council members presented it at the White House this morning. Through tradition, we have them here before the Congress this afternoon.

I just want to make a couple of observations as we prepare to hear from Chairman Sprinkel. We are entering a year, I think many would say, of unusual uncertainty with respect to the economic outlook. Economists have no precedents from which to predict the effects of a decline in the stock market of the magnitude of last October.

One recent witness before the commitee described it as a unique historical event. I think, in part because of that, GNP growth rate predictions appear to vary more widely than usual. Among the 51 economists surveyed by Blue Chip Economic Indicators, the 1988 forecasts vary from minus 1.2 percent to plus 3.7 percent. We have a spread here of almost five points in the predictions.

Although much of the uncertainty centers around last year's drop in the stock market, there are a number of other factors that could contribute to slower growth, including higher consumer debt burden, the inventory overhang from the fourth quarter, prospects for slow growth in the rest of the world, and a persistent volatility in the capital markets. There has been a 3-month decline in the leading indicators now, and a downward trend in new housing permits.

Prior to October, the consensus among the Blue Chip economists was that the economy would grow between 2.8 percent between the fourth quarter of 1987 and the fourth quarter of 1988. In early November, this forecast fell to 1.9 percent; and in February it was revised even further, to 1.8 percent, which is what the Congressional Budget Office is projecting.

The administration has adjusted its forecast downward from last August's 3.5 percent to 2.4 percent. So the preponderance of forecasts for economic growth for this coming year falls just below 2 percent, with the administration on the higher side of the range of figures.

In addition, some economists are predicting at least one or two quarters of negative growth, although few economists predict a recession for 1988.

I think one of the growing concerns is that, if and when such a recession comes, it could be particularly severe, given the fact that the private sector debt burden, for example, stands at 170 percent of national income compared to 140 percent at the start of the two previous recessions. Our continuing dependence on foreign lenders is keeping interest rates much higher than they should be. Given the deficit problems, there would probably be severe limits on countercyclical use of the Federal budget.

One important question at this time which we have explored in other hearings and about which I look forward to hearing from Chairman Sprinkel and his colleagues, is the direction of monetary policy. Many think it will play a pivotal role in determining whether even modest growth can be achieved this year.

In the months ahead, the Federal Reserve may be called upon to address economic goals that will be difficult, if not impossible, to reconcile: continued economic growth in the United States, combined with a stable international environment. The committee plans to hear from Alan Greenspan, the Chairman of the Federal Reserve on Tuesday, March 15, for a discussion of these issues.

It is with these important concerns in mind that we now turn to the 1988 Economic Report of the President which will be presented to us by the Chairman, Mr. Sprinkel, who will be assisted by his colleagues on the Council.

Before you begin, Mr. Sprinkel, I will place the written opening statements of Senators Bingaman and D'Amato in the record at this point.

[The written opening statements of Senators Bingaman and D'Amato follow:]

WRITTEN OPENING STATEMENT OF SENATOR BINGAMAN

Mr. Chairman, these hearings on the Economic Report of the President are especially important this year. We face a time of economic uncertainty. Some economics are predicting a recession, if not this year then next. We are faced with the towering twin deficits of the Federal budget and trade. Contrary to Administration claims, we have not created a new age of prosperity. Real wages have not recovered from the 1982 recession. Real labor income per hour, excluding fringe benefits, remains below what is was during the so-called "stagflation" years of the 1970's. And homeownership, a key component of the American Dream, has after rising for 20 years, peaked in 1980 and has declined ever since.

This country desperately needs economic leadership and an economic policy which will navigate through the shoals of stagnated standards of living and a possible economic downturn, while attacking the problems of our trade and budget deficits. Yet, I fear that leadership and policy is lacking.

There seems to be a feeling in some quarters that our problems with the trade and budget deficits are all behind us -- that we have turned the corner. I disagree. We may have stopped the bleeding a little bit, but we have not yet ended the hemorrhaging nor have we begun to repair the damage these deficits have caused.

Some have said that we should welcome an economic recession which, while aggravating the budget deficits, will reduce our trade deficit. This is a dangerous course. Yes, a recession would reduce our consumption, thereby reducing our demand for imported goods. This many be true, but America's appetite for foreign goods has remained strong when it was not expected to before. Two years ago it was claimed that the falling dollar would reduce our demand for imports, yet demand for imports has remain steady. One problem with these forecasts is that many goods are no longer even produced in the U.S.

More dangerously, a recession in the U.S. could quickly spread to other parts of this economically interdependent world, thereby damping the demand for American exports. Even now, indications are that many business are not adding the extra capability needed to take advantage of the lower dollar because they fear the coming downturn.

However, I am worried that we may not be able to avoid a recession for this exact reason. In testimony before this committee earlier this year, a number of economist stated that export growth will be the key factor in avoiding a recession in 1988. Even officials of the Administration have been quoted as saying we are now in an export driven economy. I must say that a merchandise trade deficit for 1987 of $171.6 billion does not sound like an export driven economy to me.

While economists and Administration officials continue to hope that exports will provided the economic engine to avoid recession, key industries are operating a extremely high capacity ratios and businessmen are hesitant to add capacity. Thus, it is unclear whether industry will be able to supply a growth in exports. Likewise, it is unclear who will buy all these American products. For the U.S. to increase exports, there must be someone who is willing to import more. Japan shows little willingness to increase imports, but is concentrating on domestic demand. Europe faces economic stagnation, with recent indications that Germany may be slipping into a recession. Third World nations, especially our traditional trading partners in Latin America, remain buried under foreign debt. Who will play the role of locomotive to keep us our of recession?

Rather than attacking our trade deficit with a potentially deep economic recession, we need to concentrate on the roots of the problem. First, we must develop a new mechanism for a stable system of exchange rates. While I am pleased that the dollar is now at a more realistic level, I believe it is important to avoid the volatility of the past which wrecked havoc on the international traded sectors of our economy.

Second, we must pursue a solution to the Third World debt problem. As long as our traditional trading partners in Latin America remain in mired in debt, they will continue to need to run large trade surplus with the United States, thereby aggravating our trade deficit.

Third, we need a vigorous program of export promotion by the Federal government. While the Administration's rhetoric on this score has been strong, its actions have been weak. For example, numerous positions in the U.S. and Foreign Commercial Service remain vacant, after months and in some cases years. And export promotion grants for small businesses, which studies have shown can be some of our most successful exporters, are non-existent.

Next, we need government attention to regaining our strength in the commercialization of new technologies. For the past seven years, applied research and development funds for civilian technologies have been slashed. While these trend has been reversed somewhat in recent years do to the efforts of the Congress, we still have a long way to go.

A final element of a renewed trade policy is a strong energy policy. Rising energy imports are a direct cause of our historically high trade deficits, and are a direct consequence of this Administration's lack of a coherent energy policy. Forecasts are that the U.S. will import 6.67 million barrels (mbbl) per day of crude oil this year, 6.9 mbbl in 1989 and 7.2 mbbl in 1990. Based on estimates of the costs of a barrel of oil, crude oil imports will contribute approximately $40 billion to our import bill in 1988, $46 billion in 1989 and $49 billion in 1990.

The situation in natural gas illustrates the problem. America faces a natural gas glut while demand for natural gas is down. What is the Administration's solution to this problem? Import even more natural gas from Canada in the mistaken notion that some how supply will create demand. That notion is often called Say's Law and was discredited by the Great Depression. I would be interested to know if today's witness, as the chief economist for this Administration, will tell us if he is a believer in this oversimplified version of Say's Law.

In his testimony last year, Dr. Sprinkel said that important sectoral and structural problems remain including the trade deficit, the Federal Deficit and decline in oil and natural gas. I will also be interested to hear what he has to say this year about the structural problems facing the country.

I must confess that I have almost given up hope that this Administration will do anything to address these fundamental problems -- or, in fact even cares. For all this rhetoric about a balanced budget, the President's budget for FY 89 will not even meet the Gramm-Rudman Hollings deficit reduction targets for the outyears.

The President seems not to understand the simple fact that our enormous trade deficits and foreign debt are an indication of the decline of our position in the world economy. He continues to go around telling people that our enormous trade deficit and our reliance on foreign capital are signs of our economic strength. At the same time, the government announces that our international balance on investment income has turned negative. We now pay out more in interest payments to foreigners that we receive. In the past, our investment income surplus helped offset out merchandise trade deficit. Now, because of our growing foreign debt, that surplus is gone and will not return any time soon.

In his State of the Union Address last year, President Reagan made restoring America's economic competitiveness his theme. This year, the term does not even appear. We action, not rhetoric. The Administration may feel that the international economic problems facing this nation were just last year's fad. I believe that solving these problems is our continuing challenge. I comment you, Mr. Chairman, and this committee for your active leadership on this issue. I hope that this year's review of the economic will bring us closer to an economic policy which will result in true prosperity for this nation, not the illusion of prosperity we have seen in recent years.

WRITTEN OPENING STATEMENT OF SENATOR D'AMATO

MR. CHAIRMAN, I WOULD LIKE TO WELCOME TO THE JOINT ECONOMIC COMMITTEE THIS AFTERNOON THE DISTINGUISHED CHAIRMAN OF THE COUNCIL OF ECONOMIC ADVISORS, BERYL SPRINKEL AND HIS FELLOW COUNCIL MEMBERS.

WE HAVE BEEN WITNESS TO THE LONGEST ECONOMIC PEACETIME EXPANSION IN THE HISTORY OF THE UNITED STATES UNDER THE REAGAN ADMINISTRATION. FIFTEEN MILLION NEW JOBS HAVE BEEN CREATED DURING THIS EXPANSION CUTTING ACROSS A VARIETY OF INDUSTRIES AND DEMOGRAPHIC GROUPS. SINCE 1982, THE U.S. ECONOMY HAS GROWN WITHOUT INTERRUPTION AND WITHOUT A RESURGENCE OF INFLATION.

SOME PROBLEMS CONTINUE TO PLAGUE US, HOWEVER. WE ARE STILL LIVING UNDER THE ONEROUS CLOUD OF THE FEDERAL BUDGET DEFICIT. THE TRADE DEFICIT REMAINS WITH US - ALTHOUGH I AM ENCOURAGED BY THE RECENT TREND IN THE TRADE FIGURES: NOVEMBER'S DEFICIT WAS AT $13.2 BILLION AND DECEMBER'S WAS $12.2 BILLION. WHILE THE TRADE FIGURES ARE CONTINUING TO

IMPROVE, WE MUST BE CAREFUL NOT TO ENACT HASTILY PROTECTIONIST TRADE LEGISLATION.

THE ECONOMIC EFFECTS OF BLACK MONDAY ARE BEGINING TO MATERIALIZE, WHILE THAT EVENT ITSELF - EXHAUSTIVELY STUDIED - IS YET ONLY IMPERFECTLY UNDERSTOOD. IT IS IMPORTANT THAT WE NOT OVERREACT TO IT WITH DRASTIC DEPARTURES FROM POLICY. WE DO, HOWEVER, NEED TO BETTER ENSURE THAT WE DO NOT EXPERIENCE ANYMORE BLACK MONDAYS.

I LOOK FORWARD TO THE TESTIMONY OF OUR WITNESSES THIS AFTERNOON AND TO THEIR INSIGHT ON THE PRESIDENT'S ECONOMIC REPORT.

THANK YOU, MR. CHAIRMAN.

Senator SARBANES. Mr. Chairman, members of the Council, we welcome you here and we look forward to hearing your statement.

STATEMENT OF HON. BERYL W. SPRINKEL, CHAIRMAN, COUNCIL OF ECONOMIC ADVISERS, ACCOMPANIED BY THOMAS G. MOORE, MEMBER; AND MICHAEL L. MUSSA, MEMBER

Mr. SPRINKEL. Thank you, Chairman Sarbanes. It is a pleasure to appear before you today to present the 1988 Economic Report of the President and, of course, the Annual Report of the Council of Economic Advisers. I have prepared in more detail a prepared statement which I submit for the record. I will try to summarize it more briefly in my verbal presentations.

As you indicated, accompanying me today are Thomas G. Moore, a member of the Council, who specializes in microeconomics and regulatory issues; also, Michael L. Mussa, a member of the Council, who specializes in macroeconomics and international finance.

I would like to take this opportunity to thank my staff, who worked long hours during the last several months to help prepare this report; and I am sure, Mr. Chairman, you know what that means, since at one stage in your life you were a staff member, I believe, of the Council of Economic Advisers.

Sentor SARBANES. That's correct. I do know what it means. [Laughter.]

Mr. SPRINKEL. This morning I will summarize briefly the content of the report and discuss the administration's economic forecast for 1988 and projections for the years 1989 through 1993. Then Mr. Moore, Mr. Mussa, and I will be happy to answer your questions about the report or other economic issues of interest to the committee.

The overall theme of this year's report is how, through adjustment and flexible markets, the U.S. economy was able to continue to grow in 1987 as it broke the record for the longest recorded peacetime expansion in our history. The sustained and vigorous growth in production, income, and employment did not occur by accident. They were shaped by government policies explicitly directed toward fostering the inherent dynamism of the private sector.

This report, therefore, highlights the appropriate roles of government, the private sector, and individuals to enable the economy to continue to prosper.

Chapter 1 of this report, Mr. Chairman, entitled "The U.S. Economy: Performance and Prospects," reviews the macroeconomic performance of the United States in 1987 and the factors that shaped it.

In particular, the chapter discusses the role of fiscal and monetary policy in fostering the noninflationary growth and economic adjustments. The chapter also presents the administration's economic forecast for 1988 and its longer term projections for the 1989–1993 period.

Chapter 2, "Rising Employment, Productivity, and Income," debunks a number of myths about the character of job creation in this expansion. Despite a mounting trade deficit, the United States created 15 million jobs since 1982, more than 2½ times the number created in Japan, Canada, and the other major industrialized countries of Europe combined, even though their populations is 57 percent larger than ours. These jobs have not been low-quality or part-time jobs. Ninety percent of employment growth has been full-time jobs and two-thirds of the jobs are in higher paying, skilled occupations.

The job gains have been widespread, with minorities experiencing faster rates of job growth and larger declines in unemployment than the average for all civilian workers.

Overall, standards of living have improved, and since 1982 growth in real per capita income has recovered from its slowdown in the 1970's and early 1980's.

The United States is not deindustrializing. In fact, productivity growth in manufacturing has shown strong increases since 1981. Manufacturing's share of output has risen since 1981 and is now less than 1-percent below its postwar peak share in 1973. That is, it has risen faster than total GNP.

The decline in manufacturing's share of employment is a reflection of strong productivity growth rather than weakness in the sector. There is room for further reductions in the unemployment rate, in our opinion, without reigniting inflation. We develop that argument in some detail in the report.

Chapter 3, "Adjustment and Growth in a Changing World Economy," discusses the forces behind the present external imbalances and the processes that are underway to reduce them. The real trade deficit has been declining since late 1986 and that adjustment will continue, in our opinion.

This chapter analyzes the significance of the problems that external imbalances do and do not pose for the United States and world economy. Because of strong domestic demand growth, the widening trade deficit did not impair job growth in the United States. In contrast, many of the surplus countries did not have an increase in jobs. Nor did the trade deficit cripple the manufacturing sector. Since 1982 manufacturing productivity and output have risen sharply.

Moreover, U.S. investment was aided by substantial net inflows of foreign capital, which offset a relatively low national savings rate. Real gross domestic private investment is above the 1949–81 average share of GNP, which was 16.6 percent, and was 17.9 percent last year. And we think it could be higher this year.

Although the trade deficit brought a buildup in the net foreign claims on the United States, they remain modest relative to U.S. income and wealth. The current level of foreign indebtedness is not a threat to our future. Net debt service requirements are on the order of between one-tenth to one-half of 1 percent of GNP, depending on the measure of net debt that is used.

Possible future problems stemming from a further building in net foreign claims can be avoided by continued progress in reducing the external deficit.

Chapter 4, "Expanding Trade and Avoiding Protectionism," discusses the significant progress made in 1987 toward a more open trading system. The Canadian free trade agreements negotiated in 1987 will establish the largest international free trade area in the world. The United States-Mexico framework understanding will similarly facilitate freer trade. The United States is also working toward freer and fairer trade in a number of areas in the Uruguay round of the GATT negotiations.

This chapter analyzes, in detail, protectionist legislation pending in the Congress, especially the omnibus trade bill. Although the omnibus bill has some helpful features, much of the bill would be extremely harmful. This bill represents a choice in the direction this country will take in trade policy, either forward progress toward liberalization which has been the trend throughout the post-World War II period, or stagnation through protectionism like that which began in the 1930's with the passage of the Smoot-Hawley Act.

As you are aware, we are continuing to work diligently with Congress to develop a good trade bill. However, if a protectionist bill emerges, the President has pledged to veto it.

Chapter 5, "Knowledge, Markets, and Economic Progress," reviews the important contributions of market incentives for investment in human capital and in science and technology, which promote productivity and economic growth.

The appropriate role of the Federal Government in facilitating such growth is to encourage market flexibility, protect property rights, and avoid excessive and distorting taxes and regulations. This chapter goes into considerably more detail as to why R&D expenditures, as well as educational expenditures, are very important to our future.

Chapter 6, "Airline Deregulation: Maintaining the Momentum," argues that recent calls for re-regulation are misguided. The Airline Deregulation Act of 1978 has produced benefits on the order of $15 billion a year. Fares are lower and service has increased. Current fears over monopoly pricing are misplaced, and competition remains vigorous. By every measure, accidents have declined steadily since 1978. Congestion, especially at peak hours, has increased. But the solution is not less reliance on private incentives and the private sector but rather more reliance.

ECONOMIC PERFORMANCE IN 1987 AND OUTLOOK FOR 1988 AND BEYOND

Economic growth accelerated last year. Real GNP grew 3.8 percent from fourth quarter to fourth quarter, rising more than half again as fast as in 1986. There was also a significant shift in the sources of economic growth, with net exports contributing to growth for the first time in 7 years.

Inflation, after temporarily rising to above 5 percent early in 1987, dropped back to the 4-percent range that has characterized most of the current expansion.

The shift in the sources of economic growth reflected a welcome adjustment of the U.S. economy to redress major imbalances, with slower growth in consumer spending and faster growth in exports and business fixed investment.

Improved export demand was evident in real exports and business fixed investment. Real exports grew 17 percent last year, rebounding above their prior peak levels attained in 1980 and 1981.

In the fourth quarter of 1987 there was a large drop, as the chairman indicated, in consumer demand and in nonresidential investment that combined with continued strong growth in production to produce a large increase in inventories. Increases in inventories accounted for one-half of real GNP growth in 1987. That, we believe, is unsustainably high for the future, as the chairman suggested.

Fiscal and monetary policies turned toward restraint in 1987. The Federal budget deficit was cut by $71 billion, or 1.9 percent of GNP. Monetary policy tightened throughout the year, with money growth sharply down from its growth in 1986. More recently, declining interest rates and increased money growth suggest that the Federal Reserve has been more supportive of economic growth.

On October 19, the stock market dropped 22.6 percent; a painful day. Many reasons were advanced for the market decline. Some attributed it to the trade and budget deficits. I find these ideas somewhat difficult to buy, since both deficits were declining and had been declining for some time. In other words, the theory, in my opinion, does not fit those facts.

We discussed several other possibilities in our prepared statement and also in the report.

Following October 19, monetary and fiscal responses both by the Congress, the administration, and the Federal Reserve, in my opinion, were quite appropriate. The Federal Reserve immediately supplied adequate liquidity, but much of that was subsequently removed as the problem became less serious, and a 2-year budget-cutting agreement was reached between the Congress and the administration after, I believe, a 20-day marathon negotiating session.

Following strong growth in 1987 the outlook is for continued growth this year, but at a slower pace. Real GNP is forecast to grow by 2.4 percent between the fourth quarter of 1987 and the fourth quarter of 1988. A more balanced and sustainable pattern of growth in 1988 will set the stage for a resumption of more rapid growth in the future together with gradual reductions in both the unemployment and inflation rates.

After 1988, assuming a continuation of appropriate fiscal and monetary policies, growth is projected to grow at the rate of 3.3 percent a year, a rate reflecting the economy's long-term potential plus some further modest declines in the unemployment rate.

Inflation is projected to fall from the 4-percent range of 1988–89 to the 2-percent range by 1993. Unemployment is forecast to remain steady at 5.8 percent this year before resuming its downward path in subsequent years.

The slower growth in 1988 reflects the effects of the stock market decline on consumer wealth and consumer confidence, slower money growth, and increased interest rates in 1987. It also reflects the readjustments in the sources of growth that began in 1987. The chairman is correct that prior to developments—the market decline, the increase in interest rates, and slower monetary growth—we had projected a good year for 1988, with a real growth rate of about 3.5 percent.

Growth in real net exports will contribute an even bigger share of real GNP growth in 1988 than in 1987. In 1988, improvements in trade should provide nearly half of the overall economic growth.

The rapid buildup in inventories at the end of last year will cause inventories to grow much more slowly in 1988. Of course, that will be a negative so far as real GNP is concerned. However, strong growth in exports, some recovery in consumer spending, and increases in fixed investment should allow the sharp buildup in inventories at the end of 1987 to be adjusted within the context of continued economic expansion.

Inflation, as measured by the CPI, is forecast to rise 4.3 percent by the fourth quarter of 1988, a small decline from the rise in 1987. In 1989 and later years, after the bulk of the adjustment in import prices is complete, inflation, as measured by the CPI, is forecast to move gradually downward to the goal of price stability.

I would like to emphasize that the administration's forecasts and longer term projections are conditional on critical assumptions concerning economic policy. In particular, it is assumed that the policies begun under this administration are continued beyond 1988.

In conclusion, the longevity and the widespread benefits of the current expansion demonstrate the potential of the economy in an environment that is conducive to free enterprise and individual choice. By reducing the role of government in the economy, we have measurably increased the opportunities and well-being of the Nation.

Although work still remains on the Federal deficit, the trade deficit, price stability and deregulation, a solid foundation for future growth has been established. With continued support of these market-oriented policies, the present expansion and the substantial benefits it brings can continue through 1988 and beyond.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Sprinkel follows:]

PREPARED STATEMENT OF HON. BERYL W. SPRINKEL

Chairman Sarbanes, Congressman Wylie, and distinguished Members of the Committee, it is a pleasure to appear before you today to present the 1988 Economic Report of the President and the Annual Report of the Council of Economic Advisers. Accompanying me today is Thomas G. Moore, Member of the Council, who specializes in microeconomic and regulatory issues, and Michael L. Mussa, Member of the Council, who specializes in macroeconomics and international finance. I would like to take this opportunity to thank my staff, who worked long hours during the last several months to help prepare this Report.

This morning, I will summarize briefly the content of the Report and discuss the Administration's economic forecast for 1988 and projections for the years 1989 through 1993. Then, Dr. Moore, Dr. Mussa, and I will be happy to answer your questions about the Report or other economic issues of interest to the Committee.

The overall theme of this year's Report is how, through adjustment and flexible markets, the U.S. economy chalked up strong growth in 1987, as it broke the record for the longest recorded peacetime expansion in history. The past 5 years of sustained and vigorous growth in production, income, and employment did not occur by accident. They were shaped by government policies explicitly directed toward fostering the inherent dynamism of the private sector. This Report, therefore, highlights the appropriate roles for government, the private sector, and individuals to enable the economy to continue to prosper.

When this Administration took office, the state of the economy was one of double digit inflation and interest rates, slow productivity growth and sharply rising levels of government spending and taxation. By 1982, when the President presented his first Economic Report, the nation was in its second recession in as many years and there was a loss of confidence in market economies that was accompanied by cries for government to do more. Instead, the Administration embarked on a course that placed increased reliance on the private rather than the public sector. The results have been dramatic.

Since November of 1982, 15 million new jobs have been created; production, as measured by real gross national product (GNP), has increased by almost 23 percent; living standards, as measured by real GNP per capita, have grown at an average annual rate of 3.2 percent; inflation is down from double digits to approximately a 4 percent annual rate; and interest rates are now roughly half of their 1981 peak levels.

While the private sector was clearly the engine of growth in this 5 year expansion, government policy has played a critical role by shaping the economic environment for this success. The Administration's key priority was to enhance the stability of general economic conditions by avoiding a recurrence of the cycles of accelerating inflation, rising interest rates, and deep recessions of the 1970s and early 1980s. In pursuing this objective, the Administration worked to restrain the growth of Federal spending, reduced marginal tax rates on personal and corporate taxes, reduced regulatory excesses, and encouraged stable and moderate money growth sufficient to sustain economic expansion, while restraining inflation. Overall, these policies facilitated the efficient operation of markets by promoting stability, increasing private incentives, reducing distortions in economic incentives, and avoiding burdensome regulation. The strong growth of the economy at low rates of inflation indicates that these policies have been very successful. Thus--as detailed in Chapter 2--substantial progress toward the goals of "maximum employment, production, and purchasing power" have been made during this Administration.

The various Chapters of this Report highlight these accomplishments, as well as the appropriate role of government in fostering growth. I would now like to turn to a brief review of the chapters, paying particular attention to two issues: first, the quality and quantity of job growth during this expansion; and second, the problems that the trade deficit does and does not pose for the U.S. After reviewing the chapters, I will present a review of the economy in 1987 and the outlook for 1988 and beyond.

The Report of the Council of Economic Advisers

Chapter 1 of this Report, entitled,"The U.S. Economy: Performance and Prospects," reviews the macroeconomic performance of the United States in 1987 and the factors that shaped it. In particular, the chapter discusses the role of fiscal and monetary policy in fostering noninflationary growth and economic adjustment. During 1987 macroeconomic policies turned toward restraint: growth of the monetary aggregates slowed sharply, interest rates climbed, and the Federal budget deficit was cut by one-third. Partly as a result, inflation remained low and progress was made in reducing the trade deficit.

The Chapter also describes important adjustments that occurred in the U.S. economy last year. Finally, the chapter presents the Administration's economic forecast for 1988 and its longer term projections for the 1989-1993 period.

Chapter 2, "Rising Employment, Productivity and Income," debunks a number of myths about the character of job creation in this expansion, such as: one can't have job growth with a trade deficit; the jobs that have been created are poor-paying "McJobs;" the job gains have not been widespread; America is deindustrializing; our standard of living has been reduced; and we won't be able to increase growth further without an increase in inflation.

Despite a mounting trade deficit, the U.S. created 15 million jobs since 1982, more than two and a half times the number created in Japan, Canada, and the major industrialized countries of Europe combined. These jobs have not been low quality or part-time jobs; 90 percent of employment growth has been full-time jobs and 2/3 of these jobs are in higher-paying skilled occupations. The job gains have been widespread, with minorities experiencing faster rates of job growth and larger declines in unemployment rates than the average for all civilian workers. Overall standards of living have improved, and since 1982, growth in real per capita income has recovered from its slowdown in the 1970s and early 1980s.

The U.S. is not deindustrializing; in fact, productivity growth in manufacturing has shown strong increases since 1981. Manufacturing's share of output has risen since 1981 and is now less than 1 percent below its post-war peak share in 1973. The decline in manufacturing's share of employment is a reflection of strong productivity growth, rather than weakness in this sector.

Finally, there is room for further reductions in the unemployment rate without reigniting inflation.

Chapter 3, "Adjustment and Growth in a Changing World Economy," discusses the forces behind the present external imbalances and the processes that are underway to reduce them, consistent with the objective of achieving balance in a climate of sustained non-inflationary growth.

The real trade deficit has been declining since late 1986 and that adjustment will continue. It then analyzes the significance of the problems external imbalances pose for the U.S. and world economy. Because of strong domestic demand growth, the widening trade deficit did not impair job growth in the U.S. In contrast, most of the surplus countries did not have an increase of jobs. Nor did the trade deficit cripple the manufacturing sector, even though some manufacturing industries declined. Since 1982, manufacturing productivity and output has risen sharply. Moreover, U.S. investment was aided by substantial net inflows of foreign capital, which offset a relatively low national savings rate. Real gross private domestic investment is above the 1949-81 average share of 16.6 percent of real GNP, and was 17.9 percent in 1987.

Although the trade deficit brought a build-up in net foreign claims on the U.S., they remain modest relative to U.S. income and wealth. The current level of foreign indebtedness is not a dire threat to our future. By one measure, the U.S. shifted to a net debtor position at the end of 1985. Net foreign claims equalled roughly $400 billion by the end of 1987, although that number is probably overstated. By the measure of income payments to or from foreigners, the move to net-debtor status occurred in the third quarter of 1987. Net debt service requirements are on the order of between 1/10 and 1/2 of 1 percent of GNP, depending on the measure of debt used. Possible future problems stemming from a further build-up in net foreign claims can be avoided by continued progress in reducing the external deficit.

To continue making progress, it is vital that the Federal deficit continue to decline through spending restraint; that the improvement in the U.S. savings-investment balance continues; that internal demand growth in surplus countries continues to be strong; and that markets function freely and flexibly to achieve the necessary structural adjustments here and abroad. It is also important that the adjustment be gradual, in accordance with the internationally agreed-upon strategy of achieving the adjustment in an environment of continued economic growth. Finally, protectionism is no cure and must be avoided.

Chapter 4, "Expanding Trade and Avoiding Protectionism," discusses the significant progress made in 1987 toward a more open trading system, and warns against resorting to protectionism.

The Canadian Free-Trade Agreement negotiated in 1987 is a major achievement for both countries, with both coming out as winners. When approved, it will establish the largest international free-trade area in the world, which will produce gains on the order of $1.1 to $2.9 billion annually for each country. Another bilateral agreement, the U.S.-Mexico framework understanding, signed on November 6, 1987, will facilitate consultations to negotiate the removal of trade barriers and to resolve disputes between the two countries.

The U.S. is also working in the Uruguay Round of the GATT negotiations to eliminate agricultural subsidies and trade barriers; enforce intellectual property rights; liberalize trade in services; and expand freer direct investments. In particular, the U.S. proposal to remove worldwide agricultural trade distortions would lower costs of many products to consumers, raise free market export prices to farmers, reduce price instability, reduce budget outlays, expand agricultural trade, and increase world well-being by at least $50 billion annually.

Finally, this chapter analyzes in detail protectionist legislation pending in the Congress, including the textile and apparel bill, and especially the omnibus trade bill. Although the omnibus bill has some helpful features, such as fast track negotiating authority under GATT, much of the bill would be extremely harmful. This bill represents a choice in the direction this country will take in trade policy: either forward progress through liberalization, or stagnation through protectionism. As you are aware, we are continuing to work diligently with Congress to develop a good trade bill. However, if a protectionist bill emerges, the President has pledged to veto it.

Chapter 5, "Knowledge, Markets, and Economic Progress," reviews the important contributions of market incentives for investments in human capital and in science and technology, that promote productivity and economic growth.

The appropriate role of government in facilitating these investments is to encourage policies that reduce market barriers and strengthen the incentives of individuals and businesses to invest and innovate. Government can help best by protecting property rights and by avoiding excessive and distorting taxes and regulations. Government can also resist legislation that reduces labor market flexibility, such as requiring employers to provide advance notification of layoffs and plant closings. Direct government involvement in education should continue to be largely at the State and Local level, where it is most responsive to community needs.

Chapter 6, " Airline Deregulation: Maintaining the Momentum," argues that recent calls for reregulation are misguided. The Airline Deregulation Act of 1978 has produced benefits on the order of $15 billion a year. Fares are lower and service has increased, especially to smaller city airports. Fears over monopoly pricing are misplaced, and competition remains vigorous.

Ironically, the success of deregulation led to increased traffic volume, which has resulted in congestion and concerns for safety. However, by every measure, accidents have declined steadily since 1978. Congestion, especially at peak hours, has increased. The FAA is attempting to modernize to meet capacity, but we believe the most efficient solution would be to price services realistically. Peak hour pricing of landing fees and the purchase and sale of landing slots would help. Long-term options include restructuring the system so that the role of the FAA would be safety regulation and the role of the private sector would be air traffic control.

Economic Performance in 1987

Economic growth accelerated in 1987--real GNP grew 3.8 percent from fourth quarter to fourth quarter--rising more than half again as fast as in 1986. There was also a significant shift in the sources of economic growth, with net exports contributing to growth for the first time in 7 years. Inflation, after rising to above 5 percent early in 1987, dropped back to the 4 percent range that has characterized most of the current expansion.

The shift in the sources of economic growth reflected a welcome adjustment of the U.S. economy necessary to redress major imbalances, with slower growth in consumer spending and faster growth in exports and business fixed investment. During the four quarters of 1987, real personal consumption expenditures rose just 0.6 percent, after 4 consecutive years of 4-plus percent increases. The housing sector was also weak; real nonresidential investment declined 2.9 percent in 1987, for its first drop since 1981.

Improved export demand was evident in real exports and business fixed investment. Export sales and industrial production were boosted by the drop in the dollar's exchange value, rising manufacturing productivity, and moderate wage increases. Real exports grew 17 percent last year, rebounding above their peak levels in 1980-81. Real imports also increased, but net exports still improved and accounted for roughly fifteen percent of real GNP growth in 1987. The improvement in real business fixed investment was also related to trade with strong increases in manufacturing investment that reflected, in part, improved export prospects.

In the fourth quarter of 1987, there was a large drop in consumer demand and in nonresidential investment that combined with continued strong growth in production to produce a large increase in inventories. Increases in inventories accounted for one-half of real GNP growth in 1987.

There were also shifts in the composition of output, with growth of goods production increasing more rapidly than services by the widest margin since 1984 and with improvement in agriculture, iron and steel, and other goods sectors. However, the service sector was still the strongest, with more than 2 million new jobs created.

Inflation rose during the first four months of the year, with the CPI up at more than a 5+ percent annual rate, but this did not result in sustained inflation. Rather, this inflation blip was due to relative price changes: a rebound in oil prices (with the energy component of the CPI up at a 26 percent annual rate in the first three months) and rising import prices, due to the decline in the dollar since 1985.

Fiscal and monetary policies turned toward restraint in 1987. The Federal budget deficit was cut by $71 billion, or 1.9 percent of GNP. Some of this was a one-time decrease, but much was solid reduction. In addition, real spending declined for the first time in over a decade. Monetary policy tightened throughout the year, with money growth sharply down from its growth in 1986. In 1986, M1 had grown at a 15.3 percent and M2 at a 9.0 percent annual rate; in 1987, M1 grew at a 5.9 percent and M2 at a 4.1 percent annual rate. More recently, declining interest rates and increased money growth suggest that the Federal Reserve has been more supportive of economic growth.

On October 19, the stock market dropped 22.6 percent. Many attributed the market decline to rising interest rates, an overvaluation of the market, lack of improvement in the monthly trade figure, or the prospect of higher business taxes. Some attributed it to the trade and budget deficits. However, since both deficits were declining, that theory does not fit the facts. Fortunately, the financial system suffered remarkably minimal damage; and it is still difficult to judge the implications for the total economy. Following October 19, the monetary and fiscal policy responses were appropriate. The Federal Reserve immediately supplied adequate liquidity, (although much of this was subsequently removed), and a two-year budget cutting agreement was reached between the Congress and the Administration.

Outlook for 1988 and beyond.

Following strong growth in 1987, the outlook is for continued growth in 1988 but at a lower pace. Real GNP is forecast to grow by 2.4 percent between the fourth quarter of 1987 and the fourth quarter of 1988. A more balanced and sustainable pattern of growth in 1988 will set the stage for a resumption of more rapid growth in the future, together with gradual reductions in both the unemployment and inflation rates. After 1988, assuming a continuation of appropriate fiscal and monetary policies, real GNP is projected to grow at the rate of

3.3 percent a year, a rate reflecting the economy's long-term potential plus some further reduction in unemployment. Inflation is projected to fall from the 4 percent range in 1988 and 1989 to the 2 percent range by 1993. Unemployment is forecast to remain steady at 5.8 percent in 1988 before resuming its downward path in later years.

The slower growth in 1988 reflects the effects of the stock market decline on consumer wealth and consumer confidence and slow monetary growth and increased interest rates in 1987. It also reflects the readjustments in the sources of growth that began in 1987. Consumer spending and housing are expected to increase from their pace in 1987, but they still will grow more slowly than business fixed investment, which is forecast to increase by 4.4 percent. Federal purchases are projected to decline, but increases in State and local spending are expected to offset much of this decline. Overall, the government sector is projected to have a small negative contribution to real GNP growth in 1988.

Growth in real net exports will contribute an even bigger share of real GNP growth in 1988 than in 1987. In 1988, improvements in trade should provide nearly half of overall economic growth. Continued productivity gains, moderate wage increases, and the pass-through of past exchange rate adjustments should continue to boost exports and increase the competitiveness of U.S. products at home and abroad. Slower growth in domestic demand in the U.S., higher import prices, and the possible effect of inventory corrections on imports are expected to slow the growth of imports.

The rapid buildup in inventories at the end of 1987 will cause inventories to grow much more slowly in 1988. Strong growth in exports, some recovery in consumer spending and increased fixed investment should allow the sharp buildup in inventories at the end of 1987 to be liquidated within the context of continued economic expansion.

Inflation--as measured by the CPI--is forecast to rise 4.3 percent by the fourth quarter of 1988, a small decline from the rise in 1987. Higher oil and import prices raised prices in 1987, and higher import prices are expected to contribute to higher consumer prices in 1988. However, after a year of slow monetary growth and a projection of slower GNP growth, acceleration of inflation is not a likely danger in 1988. In 1989 and later years, after the bulk of the adjustment in import prices is complete, inflation as measured by the CPI is forecast to move gradually downward toward the goal of price stability.

It is anticipated that, despite the slowing of economic growth, some one and a half million jobs will be created in 1988. This job growth should roughly balance growth in the labor force and the unemployment rate should remain steady at 5.8 percent in 1988 before resuming its downward path in 1989.

I would like to emphasize that the Administration's forecast and longer term projections are conditional on critical assumptions concerning economic policy. It is assumed that the monetary growth provides sufficient liquidity without endangering price stability and that continued progress is made on reducing federal spending. Marginal tax rates are assumed to remain low and the efficiencies and incentives of tax reform are preserved. It is also assumed that further progress is made in reducing the trade deficit and the protectionism is avoided. Finally, it is assumed that deregulation moves forward and cries for reregulation are resisted.

In conclusion, the longevity and benefits of the current expansion demonstrate the potential of the economy in an environment that is conducive to free enterprise and individual choice. By reducing the role of government in the economy we have measurably increased the opportunities and well-being of the Nation. Although work still remains on the Federal deficit, the trade deficit, price stability, and deregulation, a solid foundation for future growth has been established. With continued support of these market oriented policies, the present expansion and the substantial benefits it brings can continue through 1988 and beyond.

Senator **Sarbanes**. Thank you very much, Chairman Sprinkel.

Let me ask this question right at the start. What is the basis, as you see it, for your higher growth predictions, the 2.4 percent as opposed to the 1.8 percent which represents the consensus of the Blue Chip Economic Indicators?

Mr. **Sprinkel**. I haven't looked at all of those forecasts making up that consensus. But I suspect—I have looked at some of them—that, although we are projecting what I consider to be only moderate increases in consumer spending, several of them are predicting either no increase or a very modest increase. We, I believe, have forecasted 1.8 percent; is that right?

Senator **Sarbanes**. I think you have 1.9 percent for personal consumption.

Mr. **Sprinkel**. OK. It's 1.9 percent, not 1.8 percent. Now, that can be questioned. If we look at the fourth quarter of last year, real consumption spending dropped rather sharply. We have now—we did not initially but we do now—have some breakouts of data by months. October was, indeed, a downer. But in November consumer spending came up. In December it came up further. We do not have full numbers for January, but retail sales were up, which is part of the consumer spending.

So, there was a major upward adjustment in the savings rate in the fourth quarter, and we think it's going to remain considerably higher than last year. But nonetheless, as incomes grow, we can get modest increases in consumer spending. That is one of the differences.

Some are not expecting as much improvement on the international side as we. And as I indicated, we think it will be nearly half of the overall total growth emanating from that source. That implies something on the order of $40 billion-plus improvement in the real net exports. Real net exports are improving at a good clip, but some would say it may not increase by quite as much as we forecast.

Senator **Sarbanes**. My recollection, if I could interject at this point, is that last year your predictions or assumptions on the international front were overly optimistic.

Mr. **Sprinkel**. Slightly. We did not have a number in the report. But I remember perhaps telling you and others that we thought it might be as much as $30 billion. It didn't turn out to be quite that amount.

Mr. Mussa, do you remember the amount?

Mr. **Mussa**. It was $20-some-odd billion. I checked it the other day to see if it was close, and it was. Our estimate was a little on the high side.

Mr. **Sprinkel**. Now, during last year, especially during the fourth quarter and continuing now, we have had very strong export growth. But the most important element that is beginning to operate, which was slow in operating last year, is on the import side. We all know about the J curve and how that delays improvements on imports. But it seemed to be interminably long this time, partly because we didn't get import prices rising very quickly. Oil prices offset it. But they are rising now, and as you know, in the releases on nominal merchandise trade over the past 2 months, they're beginning to show some significant improvements on that front.

So, I don't expect to see as much strength in imports this year as we did last year. Exports did very well last year. But up until the latter part of 1987, imports were also rising.

Do you want to add to that, Mr. Mussa?

Mr. **Mussa**. I think, overall, our forecast for 1987 was a little below what it actually turned out. The preliminary estimate of real GNP growth for 1987 is 3.8 percent as opposed to our forecast of 3.2 percent. I think domestic demand growth and hence import growth was stronger than what we had anticipated, and that is part of the reason why real net exports did not show the great improvement that we had expected. If the overall growth rate had been closer to 3.2 percent that we forecast, rather than 3.8 percent, import growth would have been a little bit weaker and we would have seen more improvement in real net exports than was actually recorded.

Senator **Sarbanes**. Let me follow up by putting this question to you. Most of the private forecasters, a substantial majority of whom are predicting slower growth than you are predicting, do not predict that interest rates will decline to the levels which you are predicting.

In other words, you are simultaneously predicting faster or higher growth and at the same time predicting lower interest rates—a T-bill rate of 5.3 percent. The Blue Chip consensus was 5.9 percent. In fact, many forecasters expect interest rates to rise.

How do you explain this?

Mr. **Sprinkel**. It is true that we are on average predicting higher growth than most of the private forecasters. However, it is a lot slower than we actually enjoyed last year, as you just pointed out. My guess is the difference goes back to some disagreement as to how we interpret price developments last year. It was our view, going into that period, that the stated inflation numbers would indeed go up; but they would go up not as a result of rekindling the fundamental inflationary pressures brought on by demand pushing up against limited supply but rather as a change—a very important change but nonetheless a change—in relative prices. And we had expected that it would bulge early in the year and then taper off later in the year. That indeed is what happened.

We think that this tapering down will continue through most of this year, especially in view of the fact that we are going to have slower growth than last year; and it is likely that slower growth not only will lead to some reduced expectations of inflation or a little actual reduction of inflation, but also will get transmitted into lower interest rates.

So far this year, except for the last few days where there is a little retrenchment, interest rates have been coming down. It is our expectation that this will be the basic trend during 1988, interrupted from time to time, of course.

Senator **Sarbanes**. What do you see as being the basis for the lower interest rates that you are predicting? Are you anticipating a loose monetary policy by the Fed?

Mr. **Sprinkel**. We have stated very clearly from the beginning that we anticipate that monetary growth aggregates will hit their targets this year—Chairman Greenspan, I believe, testifies next week on what those exact targets are—in the meantime we don't know for sure what they are. We know close to what they are, and we anticipate, as I hope the Fed will tell you, that they anticipate getting in the band of those targets. And in this sense, monetary policy will be somewhat easier than occurred through the bulk of last year.

You perhaps noticed that in January of this year there was considerably more growth in the monetary aggregates than in prior months. For example, M1A grew at 9.5 percent after averaging only 2.8 percent for the total year. M1 grew 12.9 percent—these are annualized rates—after averaging only 6.2 percent for the total year. And M2 grew at 9.8 percent annual rate in January versus an average of 4 percent last year.

So, we are assuming that they will achieve their goals. We have to assume something, and I think that is the reasonable thing to assume.

Senator SARBANES. I notice on page 45 of your report that you say monetary policy at the end of 1987, which was just 6 weeks ago, indicates that they may have underestimated the risks to adequate economic growth. At the end of the year, interest rates were down from their October highs, but remained above the levels of January through August, while monetary aggregate growth remained weak. More recently, declining interest rates and increased money growth suggest that the Federal Reserve has been more supportive of that economic growth.

Mr. SPRINKEL. Yes, sir.

Senator SARBANES. So, you see the policy pursued last year as being too tight, I take it?

Mr. SPRINKEL. There is at least a question as to whether or not it was giving adequate attention to economic growth. Let me add—and I want to be very careful how I say this because I don't want to create the wrong impression—we were quite supportive of coming off the very high rates of growth in 1986. For example, I can give you some numbers here, M1 in 1986 grew 15.6 percent for the year, M2 grew 9.4 percent, M3 grew 9.1 percent.

Had those kinds of rates of aggregate growth been sustained over a few years, maybe less than a few years, I have no doubt that it would have led to an acceleration of inflation, which none of us wanted.

So, pulling down from those numbers was clearly the right thing to do. And we have so stated on numerous occasions.

We are very pleased, however, that more recently interest rates have come down further and that monetary aggregate growth has been somewhat faster.

Senator SARBANES. How much effect would changing your interest rate assumption from 5.3 percent to the consensus assumption of 5.9 percent have on the deficit forecast?

Mr. SPRINKEL. I am afraid to guess, but we will be very pleased to make those computations and send them to you.

Do either of you have a feel on that?

Mr. MUSSA. I believe the budget documents present some sensitivity results for one-tenth of a percentage point change in the Treasury bill rate. In the current fiscal year, of course, the effect is relatively limited, but in terms of the 1990 budget then you begin to get more like a billion dollars per tenth, something like that.

Senator **Sarbanes**. A billion dollars per tenth of a point?

Mr. **Mussa**. Something like that. I don't know exactly what the figures are. But as I said, the budget document does present some sensitivity results for alterations in the assumption.

Senator **Sarbanes**. Mr. Chairman, on page 32 of the report—and I am really just trying to have a little bit of an exposition from you—you say that, "during 1987 the Federal Reserve continued the eclectic approach that has characterized its decisionmaking within the Nation's central bank in recent years."

I was interested in having a little elaboration by you on the meaning of eclectic.

Mr. **Sprinkel**. I didn't mean that as a bad word, because I think I have also become a little more eclectic in recent years, and I consider that desirable, not undesirable.

What I meant was that they had backed off on some of the targets they previously had emphasized—M1 targets, for example, were eliminated and for good, sensible reasons, I think—and that they have put perhaps as much emphasis on net borrowing or the Fed funds rate as they have even on M2, which is a target.

So, they balanced their policies among several variables. That's what I had in mind when I wrote that.

Senator **Sarbanes**. Do you expect the national saving rate to rise significantly?

Mr. **Sprinkel**. I think so, and I hope so.

Now, too much of a good thing could do us in. Obviously, the consumer is two-thirds of total spending. If we were to get, for example, a decrease in consumer spending with a very sharp rise in savings, it could have unfortunate effects on the economy.

But the average last year was, I believe—I know that one quarter number was the lowest in the postwar era, but I think it averaged near the lowest in the postwar. The fourth quarter, it accelerated sharply to 4.9 percent. We are hopeful that it will hang somewhere in that general range.

In addition to that, hopefully we will get a little bit of a further decrease in the Federal budget deficit, not much but a little, and business savings might also improve somewhat.

So because we do expect in the manufacturing sector, in particular, that profits will perform well and savings will therefore increase, yes, I think the chances are rather good that that—an increase in the national savings rate—can happen. Increased profitability has very favorable effects, from my point of view, not only on our long-term growth prospects but also in terms of the impact it will have on our trade deficit.

Since we have to finance the deficit between our exports and our imports by importing capital, increased domestic savings will gradually reduce the inflow of foreign capital.

Senator **Sarbanes**. So the corollary to that expectation is that capital inflows will diminish?

Mr. **Sprinkel**. Yes, sir, that is our expectation.

Mr. Mussa is one of the world's leading experts on that, and I would be pleased to hear his elaboration if you are interested.

Senator **Sarbanes**. Certainly.

Mr. **Mussa**. I think it is reasonable. We do anticipate some improvement in the national savings-investment balance, largely due to an increase in the average saving rate in 1988 from the average in 1987. Perhaps investment spending will also be a little bit lower, with an inventory correction, reducing the amount of inventory investment next year and possibly marginal improvement in the Government deficit as the share of GNP; all of which should contribute to improvement in the national savings-investment balance, and to roughly corresponding reductions in the current account deficit and the net flow of foreign capital into the United States.

Senator **Sarbanes**. Here is my problem. You are predicting more growth than the private forecasters but lower interest rates as a general proposition.

Now, you have identified a higher consumption figure as one source for your predicting higher growth.

Mr. **Sprinkel**. Yes, sir.

Senator **Sarbanes**. So, it is not just your saving rate assumptions that enables you to make your interest rate projections; you are also, as I understand it, assuming that the capital inflows will diminish.

So then I come back to my question: How is it that you can have stronger growth and lower interest rates?

The only other possibility I can find is a very loose policy by the Fed. Is that where we end up?

Mr. **Mussa**. I am not sure, Senator, exactly how our forecast for consumption now would compare with outside private forecasts.

When we did the preliminary version of the forecast in late November, we had a significantly lower consumption growth rate forecast for this year. When we saw the fourth quarter results, which showed a significant downward adjustment in consumption spending in the fourth quarter, we said, well, much of the adjustment that we were anticipating already has occurred. In our current forecast the components have been adjusted in light of this development.

I am not sure of the extent to which outside forecasts, which are often reported with a lag, have been adjusted entirely for that development.

In any event, in comparing the coming year with last year——

Senator **Sarbanes**. Assuming that is not the case, accepting your explanation earlier that one of the reasons for the difference in the forecast figures is that you are assuming higher consumption growth than the private forecasters—how do you get lower interest rates? If you put that to one side, given all the other statements you have made here about your assumptions, it seems to me the only way you can have both higher growth and lower interest rates than the private forecasters are suggesting is by making some assumption about how loose the Fed's monetary policy will be.

Mr. **Mussa**. Let me go back to the savings issue for the moment. In terms of the foreign capital inflow, we are, of course, projecting a smaller inflow next year than last year. But, basically, what we are saying is there will be an improvement in the national savings investment balance within the United States.

So we will need a smaller inflow of foreign capital in 1988 than we required in 1987; and to the extent that interest rates are needed to attract capital, the smaller inflows are consistent with lower interest rates rather than higher interest rates.

Obviously, if foreigners wish to deluge us with an increased supply of capital, that would tend to push interest rates down, of if they wished to pull out capital, that would tend to push interest rates up.

What we are projecting, though, is that the action is coming from the domestic side, that is, an improvement in the national savings-investment balance within the United States that should, on the savings-investment criteria, push interest rates down, not up.

Senator **Sarbanes**. Do you think the Fed's monetary policy now is sufficiently sensitive to stimulating economic growth?

Mr. **Sprinkel**. Based on the more recent numbers that we have seen, we are quite comfortable.

Senator **Sarbanes**. How long have you held that view?

Mr. **Sprinkel**. Since we began to get more money growth. That is about 6 weeks.

Senator **Sarbanes**. So if the Fed doesn't respond as you think necessary, all these predictions are off, are they not?

Mr. **Sprinkel**. Yes, sir. We stated at the time we issued our forecast that there were three critical assumptions—and there were some other subsidiary ones—but three absolutely critical assumptions that we used in making the projection.

One of them was that monetary aggregate growth would be in the Fed target ranges this year.

The second is that we would continue to get growth in domestic demand abroad because, as we indicated, we were depending very heavily on continued strong export growth.

And, third, that the agreement reached between the Congress and the administration on fiscal restraint—maybe not enough, maybe too much, but at least some fiscal restraint—holds.

Now, on the latter case, after listening to the discussion yesterday between the President and the leaders of the Congress, I felt pretty confident that they were all dedicated to holding that agreement.

Senator **Sarbanes**. I think that agreement will hold.

Mr. **Sprinkel**. I think that will hold on the demand side.

Senator **Sarbanes**. Of course, there may be a difference between the Congress and the President on the mix of the priorities. Obviously, there is a difference, and the President has sent a budget that encompasses in many respects his set of priorities, which differ sharply from the Congress', and differ sharply from last year's budget, as a matter of fact.

But on the overall macroeconomic impact of the budget, I would expect a 2-year de minimis.

Mr. **Sprinkel**. I think that is true. As the President indicated, his budget this year did not fully reflect his priorities because we were constrained by that agreement. I am sure that it doesn't fully reflect individuals' in the Congress priorities either.

The first assumption was monetary growth, and you are correct in pointing out that if we were to get an extremely tight monetary policy we would have to change our numbers. But I don't anticipate that.

Senator **Sarbanes.** Actually, you would have to change them even if it were not extremely tight. You are really depending on a fairly accommodating monetary policy.

Mr. **Sprinkel.** Yes, sir, that is correct. We have an independent central bank. I have given a lot of testimony before this Congress supporting independence of the central bank. I think it is the right way to do it, and we are depending on it.

Senator **Sarbanes.** Let me turn to your discussion of the stock market.

Mr. **Sprinkel.** Yes, sir.

Senator **Sarbanes.** I wasn't quite clear. My sense of the report was that you didn't think much ought to be done in the wake of it. Considering, in particular, the Brady report.

On the other hand, as I understand it, your analysis of what happened, or why it happened, to a large degree coincides with the Brady report. In other words, your analysis is not of broad underlying economic trends. As you point out, some of those trends were improving rather than worsening at the time it happened—what you call panic.

Mr. Brady has identified certain processes in the market that he thinks contributed markedly to this, and I was wondering about your views on action to address the problems Mr. Brady saw, including the various proposals he and the commission presented.

Mr. **Sprinkel.** Mr. Chairman, let me say that I did reject the twin deficits as an explanation because of their improvement; but in the text, even though I didn't mention it today, we did talk about sharply rising interest rates beginning in the latter part of August and extending well into October, which I think—I have spent a lot of time in my life working in financial markets and I know that sharply rising, long-term interest rates are bad news for equity prices—had an effect.

We also looked at the survey that was made, I believe, by the Brady Commission, asking for ideas from participants. That—rising interest rates—was one of the important ones they noted.

We also argued in the report that there was action taken in one of the important committees in the House to raise some business taxes, which would have had an adverse effect on corporate profits if it actually came to pass, and we felt that that was consistent, at least, with what happened.

Also, there were great pressures toward protectionism. Many on the outside felt that it was a done deal, that we would never be able to head off protectionism. As those fears rose, that also probably contributed.

Now, with respect to the major point you asked, I am in no good position to answer. Let me tell you why. I will be, but I am not now.

When President Reagan accepted the so-called Brady report and after thanking the members, including Senator Brady, for their prompt, detailed, and beneficial work, he indicated at that time that he wanted to see that report, read it carefully, and also read all the other reports that were scheduled to come out. They are now out, to the best of my knowledge. I have a stack of them on one side of my desk that I have read, except part of the very thick study by the SEC I haven't yet got to.

We have not yet within the administration formulated a position. That doesn't mean we aren't going to. We have been busy with budgets. We have been busy with economic reports, and the information is now in. We have not yet decided what view we would take. We are going to study it very carefully, and we will have considerable effort exerted across the Government, and we will set out a position, but I can't give you one today.

Senator **Sarbanes**. Senator Brady, when he testified before the Congress, indicated that he thought we remained at risk for, if not a full repeat performance, at least very severe volatility in the market, and that it was a situation that needed to be addressed because of the very real possibility of a reoccurrence, perhaps at any time.

Do you share that concern? How much of a crisis issue do you regard it as being?

Mr. **Sprinkel**. Well, if our explanation, which was an eclectic explanation, of the reasons for the break was approximately correct—that is, rising interest rates, higher taxes, and the near certainty of protectionism helped—I am not as concerned about those three items as I was last summer.

Senator **Sarbanes**. What about Mr. Brady's analysis of the trading practices which overloaded the market at this particular time?

Mr. **Sprinkel**. I am aware of those charges, and I think they are correct. I have talked to a lot of people. There were certain systems that did not work, because—well, the design was wrong, in the sense that it couldn't handle that volume. It is my understanding that already in several of the markets, including the New York market, they have augmented the ability of the systems to work.

There are still issues related to clearings which caused some problems.

But fortunately, the various markets are correcting some of those problems on their own. I don't think anyone would argue that they are now fully corrected, but they are aware of them and are trying to correct them, and it is fortunate that they have the incentive to do it because that is where their livelihood is.

I think that will push them rather aggressively in that direction.

Senator **Sarbanes**. How much of an urgency do you think there is to correcting these problems?

Mr. **Sprinkel**. I am pleased that they are moving aggressively, and I think the Congress certainly is moving correctly to review all this evidence, and that is exactly what we plan to do in the administration.

So we should not just laugh it off. It was a very unfortunate Monday. It was indeed unfortunate. It is not a laughing matter, and I think we should look at it very carefully.

Senator **Sarbanes**. Senator Proxmire has given the regulators a month, I think, to report back to the Senate Banking Committee.

Is the Council working within that same timeframe in terms of addressing the problems?

Mr. **Sprinkel**. I cannot tell you. This study is headed up, as it should be, by the Secretary of the Treasury. I work with him, but I do not know by what date we will finish. I couldn't guess what the date of completion might be.

Senator Sarbanes. You have talked—in fact, it is in the summary statement you made—about the growing external debt and the current level of foreign indebtedness.

In your statement—I noticed this as you were reading it—you say: "The current level of foreign indebtedness is not a dire threat to our future."

That is the written statement.

Mr. Sprinkel. Yes, sir. I believe that. I wrote it.

Senator Sarbanes. Then when you gave the statement, you didn't use the word "dire."

Mr. Sprinkel. That was an accident, sir. [Laughter.]

Senator Sarbanes. The current level of foreign indebtedness is certainly a threat to our future, is it not?

Mr. Sprinkel. I do not think it is a threat, provided we handle our policies properly.

Let me tell you how it could be a threat, which isn't going to happen.

Senator Sarbanes. As opposed to a dire threat now?

Mr. Sprinkel. It will be a dire threat if in fact——

Senator Sarbanes. It could be a threat, but not a dire threat?

Mr. Sprinkel. It could be a dire threat.

Senator Sarbanes. Is it a threat right now?

Mr. Sprinkel. It is not a threat right now.

There are two ways of asking, based on the data that I know about—there may be another, but I only know of two—how you decide whether or not we are in hock; that is, whether foreigners have more net claims against us than we against them.

One of them is to look at the net claims series that the Commerce Department reports, and we looked at it. They tried to estimate when we crossed the line, and they had us crossing the line sometime in the latter part of 1985, and we tried to guesstimate what it might be by the end of 1987 but those numbers aren't out yet. At least I haven't seen them. We think it could be as high as $400 billion.

We think there are very good reasons to believe that that net claim by foreigners is substantially overstated. For example, they use accounting data, not market data. I have nothing against accountants. I have a lot of friends who are accountants. But it is not too relevant to this particular issue. It should be in economic terms. They should do the same thing for foreigners. The problem is that the investments we made were made quite some time back and they carry them at the original cost adjusted for depreciation, and as a result they sort of disappear into the ether; whereas, those assets are still there and still earning a lot of money.

That is the major difference. There are some others.

There is a second way, and that is to say, well, if they are getting a lot of claims on us vis-a-vis us getting claims on them, it ought to show up in terms of how much we have to pay them versus them paying us; if you use that as a measure, we turned to a net debtor status in the latter part of 1987. That is just a few months ago. We then said how big is it?

I insisted that we needed to compare it to something. We took a look at assets and we took a look at incomes; and it turns out that if the $400 billion is right, which we think it is, it would take about a half of 1 percent of GNP to service it under reasonable assumptions.

We don't think it is that big, but that is what it would be if it were $400 billion, honest to God.

On the other hand, if we were to service it based on when we crossed the Rubicon, as measured by payments to them versus payments to us, that is only about one-tenth of 1 percent of GNP.

And, furthermore, keep in mind that much of this capital was used to keep investments high. When you make investments, if they are good ones, they generate returns more than adequate to service the cost.

Now, where it could be a dire threat, Mr. Chairman, is if we were pursuing policies in the United States which were resulting in exploding fiscal deficits, contributing to rising trade deficits, raising taxes, and scaring people away from us; capital would try to rush out of here. In those hazardous circumstances I would consider that dire.

We are not going in that direction at all. We are going in exactly the opposite direction, and if we continue to make progress in pulling our fiscal debts down, if we keep our inflation under control, if we keep our tax rates down so that the rates of return here are attractive, it is not a dire threat. It is not even a minor threat. These goals are what we need to continue to work on.

Senator **Sarbanes**. Mr. Chairman, I listened to that very carefully. Let me ask you this question.

I take it that the United States has now passed into a net debtor position, is that correct?

Mr. **Sprinkel**. By either measure you come to that conclusion, yes, sir.

Senator **Sarbanes**. When was the last time that the United States was in a net debtor position?

Mr. **Sprinkel**. You know, the numbers weren't as good in those days, and that may be one of our problems. We have too many numbers around now. But up until World War I, which was before our time, we were in a net debtor position. From the beginning of this nation and before. We built the railroads—not me, but the private capitalists built the railroads—mostly with imported capital, and it turned out to be a very good investment, and we paid off that debt and serviced the claims.

It is not necessarily bad that foreigners have so much confidence in rates of return and political stability in your nation that they insist on investing here.

So we have to go back to approximately World War I to find the prior beginning—or the end really of the net debtor status.

Senator **Sarbanes**. Of course, in the 19th century we were in the classic position of a developing nation.

Mr. **Sprinkel**. We still are, sir.

Senator **Sarbanes**. We were a debtor nation in terms of expanding the national economy. We have not been a net debtor nation since 1919.

Mr. **Sprinkel**. That is correct.

Senator **Sarbanes**. We passed into that status sometime in the last 3 years, depending on how you define it, and you shrug it off.

Mr. Sprinkel. I didn't mean to. What I meant to say is that it is very important for this and other reasons, that we continue to make progress on getting our fiscal deficit down, in getting our saving and investment relation in better balance, in continuing to take advantage of the fact that our competitiveness in foreign markets and at home has enormously improved, gradually slowing imports and in substantially expanding exports.

It is very important that these adjustments continue. That is happening. I think it will continue.

But if we were to reverse course, I would be worried about the threat of the net debtor status.

Moreover, I should point out that it is not really all debt, as I am sure you are well aware. Much of it is equity. Furthermore, it is in our currency, not their currency. That doesn't mean it isn't relevant, and that we shouldn't be aware of it, but it certainly makes it a different situation than, say, some of our friends to the south with their debts denominated in our currency.

Senator Sarbanes. In the report, on page 99 where you discuss the trade deficit, you make the statement that: "A persistent trade deficit in the range of $150 billion per year would be a source of worry because it could present difficulties for the world financial system, especially if for some reason foreigners suddenly become less willing to hold claims on the United States."

Mr. Sprinkel. Yes, sir.

Senator Sarbanes. Haven't those difficulties begun last year? Did we not have to rely on foreign governments, rather than private foreign lenders, to finance our trade deficit?

Mr. Sprinkel. We did, but the statement that you quoted is a backup for my statement that we shouldn't ignore it. That is, if we were to stay, for example, at a $150 billion trade deficit or higher indefinitely, that means net foreign claims go up commensurately. If you get them up to a trillion dollars, $2 trillion, it is not a laughing matter.

Senator Sarbanes. We are probably going to get it to a trillion, even if we reduce the trade deficit, aren't we?

Mr. Sprinkel. I don't think so, but it could happen. As I indicated——

Senator Sarbanes. What figure do you think it is going to top out at?

Mr. Sprinkel. At the end of when?

Senator Sarbanes. I don't know. You are trying to work the trade deficit down.

Mr. Sprinkel. It will not be over next year. There is no doubt about that.

Senator Sarbanes. What will be the figure, the total figure, at the time that you can balance it out?

Mr. Sprinkel. It will be out there a few years, but it is getting smaller and smaller.

Senator Sarbanes. But each year you are adding to it?

Mr. Sprinkel. Yes. As long as there is a net trade deficit in the United States, whatever it is, it adds approximately a commensurate amount to our net foreign indebtedness, but it is coming down.

Senator Sarbanes. You used the $1 trillion, $2 trillion. Let's leave the $2 trillion figure to one side.

Do you anticipate it balancing out before we get fairly close?

Mr. SPRINKEL. I think so. We are going to make good progress this year. Nobody knows the future for sure, but we believe—we have not made an estimate of the precise number you want. It is an important question. We have made some educated guesses, I would say, about what could happen on the real net exports, and we think that will improve somewhere between $40 and $50 billion in 1988, but that is not quite the number you want. What we want is the nominal number, and that works more slowly.

But most recently——

Senator SARBANES. It is a nominal number on which we pay the claims. That is why it is relevant?

Mr. SPRINKEL. Yes.

And would you like to give him a guess, Mr. Mussa, or tell him what it will depend on?

It is coming our way.

Mr. MUSSA. It depends in part on which indicator we use. If we say we are in approximately a zero position in the third quarter of 1987 when the net interest and dividend payments approximately balance, then we are very close to zero now, perhaps $50 billion in net debt.

Then keep in mind these are 5-year projections. So a figure of uncertainty attaches to it. We would have progress in the current account deficit under those assumptions, with the net external indebtedness in 1987 dollars topping out at probably around $600 billion, something like that, in the mid-1990's.

Obviously, if we take the $400 billion figure, where we are now, and we add around $600 billion to it, we get close to a trillion dollars.

Senator SARBANES. You do get a trillion dollars.

Mr. MUSSA. If you take that figure—net claims—to measure net debt. I think the relevant question in assessing the indebtedness is what do you need to pay out of your income in order to service the debt, and by what amount do you need to reduce your consumption or investment. So if net debt tops out at 10 percent of GNP in the mid-1990's and the real rate of interest is approximately 5 percent, then you have about a half a percentage point of your income that you need to devote to debt service, which is not an enormous amount.

I think it is relevant to note in this regard that Canada's net external indebtedness is estimated now to be about 40 percent of GNP; whereas, the top estimates for ours would be around 8 percent.

What is critical at this stage is to make sure we are making appropriate progress in reducing the rate at which the stock of indebtedness is growing each year; that is, bringing down the current account deficit along adequate path adjustments.

Senator SARBANES. Well, we have had testimony before this committee raising the very basic question—I know it is not a strictly economic question—as to whether you can be the world's leading power and also be the world's largest debtor nation. I think that is a reasonable question to put.

It really leads me to this question, following what I was asking you before.

What would be the effect on the American economy if foreign lenders lost confidence in the United States and withdrew their assets?

Mr. **Sprinkel.** It wouldn't be pleasant. That is, if we pursue foolish policies—such as highly inflationary policies or eliminating incentives—if I were a foreigner, I would want to take my money home, too; and that would have impacts on the exchange rate and drive the dollar down. It would make it difficult you know, they wouldn't be willing to finance any trade deficits. So one way or another, you would get rid of that trade deficit in a very painful way, probably a recession. That is the fastest way to get rid of it, but not the recommended way, and we should be concerned about that.

We should be concerned about our policy because if we do it right, they will continue confident, as they are today.

Senator **Sarbanes.** To what extent is monetary policy held hostage to international requirements?

Mr. **Sprinkel.** Well, I want to say it has no effect. I would like for them to speak for themselves, but let's talk about it in terms of history.

It is not true, for example, that a very easy money policy leads to confidence in your currency and causes it to go up. It does exactly the opposite. It will drive it down. When you have rapid expansion in money here, it will cause inflation. Your currency will deteriorate vis-a-vis other currencies. So no one wants to do that. They don't want to do it.

On the other hand, they must keep a reasonable constraint on money growth in the United States vis-a-vis the rest of the world, not only for international reasons but, more importantly, to keep our inflation under control.

So I don't like to argue—and I am willing to let someone else prevail—that monetary policy is completely the hostage of economies abroad. We are in control of our own destiny, and we need to cooperate with parties abroad, but we are the leading nation in the world and we will remain the leading nation in the world and, therefore, to say that we are hostage to what happens elsewhere I think ignores reality.

We should be sensitive to what happens elsewhere. We should try to cooperate with what happens elsewhere, but that doesn't mean we are hostage.

Senator **Sarbanes.** To the extent we have moved into this debtor position, our freedom of movement has been circumscribed.

Mr. **Sprinkel.** I think that is very doubtful, sir. I do not notice in international meetings that I attend that we have less influence than we had the day before we moved into a net debtor position.

If we were to pursue poor policies and wreck our economy, as I indicated, causing more net debt, yes, we will lose influence, and the ability to influence. But that hasn't happened and, in our opinion, will not happen.

Senator **Sarbanes.** To work out of this situation, are we going to have for a period of time to produce more than we consume?

Mr. **Sprinkel.** Yes. In essence, if by consume you mean by consumption: consumption and investment. If you mean are we just having a big ride on a consumer spending binge, that is a little more complicated. But in essence, we have utilized more resources through this period than we have been producing. It is moving the other way now.

Do you want to elaborate on that, Mr. Mussa?

Mr. MUSSA. I wanted to mention what I think is a key point about confidence. What matters is the confidence that investors in general have in the economic prospects and policies of the United States. If there is a loss of investor confidence, it presumably is not going to affect only foreign investors; it is going to affect domestic investors as well, and the consequences of that on the economy are very undesirable.

But the key issue is not where we are vis-a-vis the line of net indebtedness. Physical assets are estimated to be roughly $13 trillion in the U.S. economy. When you count human capital, you are up to $50 to $100 trillion, depending on what discount rate you use.

Now, if the investors who own and accumulate all of those assets lose confidence in the future prospects of the U.S. economy, then we have a big problem, but the magnitude of that problem is not materially affected by whether the net claims that the foreigners hold are $200 billion bigger or smaller relative to a total national wealth of $50 to $100 trillion.

Senator SARBANES. Isn't the prospect of a rising standard of living for Americans going to be affected by the necessity of having to consume at rates less than they are producing in order to address the current economic situation?

Mr. SPRINKEL. It certainly hasn't been the situation up to now during our administration. As I indicated in my testimony, income—standards of living by any measure we have been able to find, have improved at an accelerating rate.

Senator SARBANES. Right, but we have worked ourselves into this debt situation.

Mr. SPRINKEL. But why did we borrow? Certainly, a considerable amount of this inflow resulted in investments maintained at a high level in the United States which will generate returns to service the claims abroad. Therefore, I do not believe the argument that we must now sacrifice and go into lower standards of living is the correct argument.

The correct argument is that we must continue to improve—we can continue to improve—standards of living. We have the capacity. Do we have the will? Can we follow the policies that will make continued improvement in the standard of living constant?

I think we can.

Senator SARBANES. By your own statement, we have been through a period in which the consumption has outrun production, correct?

Mr. SPRINKEL. What do you mean by consumption?

That is, we have utilized resources in excess of what we have been producing, but we have not used it for consumption as usually defined.

We have used it for government, we have used it for investment, and therefore the easy statement that we have been consuming ourselves into oblivion doesn't quite follow.

Senator SARBANES. I didn't say into oblivion. I am really trying to keep this issue on course and not take it to extremes.

Mr. SPRINKEL. Yes, sir.

Senator **Sarbanes**. It seems to me clear that we are now in a situation where we are going to have to work out of debtor status. We are going to have to produce at a rate in excess of consumption.

Isn't that correct?

Mr. **Sprinkel**. That is correct. Consumption, defining it broadly, yes.

Senator **Sarbanes**. That has implications for what might happen to the standard of living.

Mr. **Sprinkel**. If we maintain high levels of investment at the same time as we have up to now, it doesn't necessarily follow that the standard of living comes down.

Senator **Sarbanes**. I didn't say that. I said it would be affected. Whether it comes down or not depends, in part, on how much economic growth we have and how much of a margin that gives us for our production to exceed consumption.

Either it won't grow as much as it might, or it may even fall. I mean, who knows? But it is related to how much economic growth we have; it that not correct?

Mr. **Sprinkel**. To the extent that we have to pay more abroad and it is not offset by assets that we have invested in, either human or physical capital, which generate revenues, and to the extent that those payments are in excess of those investments, yes.

But remember, we maintain very high levels of investment in both human and nonhuman capital.

Senator **Sarbanes**. In closing, I want to turn to one other area, an area in which I have had some interest over the years. I want to see how much interest the Council has in it and perhaps encourage your interest.

The American Economic Association's Committee on the Quality of Economic Statistics recently made the following statement:

> The statistics now collected by the government provide a weak basis for understanding and choosing among policies and are likely to be increasingly inadequate to meet policy needs in the future. We have been concerned about the quality of statistics and about the support for the statistical gathering agencies in the Executive Branch of the government and have tried to be of help to them in budget matters as much as is possible in a time of constraint that we are now operating within.

First of all, how important do you think a good, strong statistical base is? How necessary?

Mr. **Sprinkel**. I think it is important. When we pursue policies, whatever they may be, it is important that we can measure the results. That may be over a few years, but if they are bad results, it ought to raise some questions about the policies.

Furthermore, you would like to have some kind of sense of how it is going in the shorter run, and you need data. You can't just imagine doing without it.

Then when you get into micro areas, such as those that Mr. Moore works in a great deal, you certainly need data in order to estimate what the effect of deregulation or reregulation, or whatever, may be happening there.

So, yes, we are very supportive of that, and we have taken some actions, but I am not at all sure it has been sufficient.

I have not read that report.

Have either of you read that report by the American Economic Association?

Mr. **Mussa**. There was some discussion of it. Wendy Gramm is chairing the group within the administration on the quality of government statistics. So some of those issues were discussed.

But as you pointed out, Senator, it depends on what resources are available and how you allocate them. These are issues that are continually being addressed.

I think one of the important areas in which the administration is working at present has to do with our measurement of the trade balance figures. The monthly figures are reported only on a nominal basis, without any effort to estimate what is happening to the real trade flows. The desirability and importance of these numbers, and the need to get some better reporting of both nominal and real flows for what has become a critical policy issue.

I think it is perhaps worthwhile noting, that problem goes back a decade to two decades. Not so much attention in terms of either public attention or attention in the policy process was focused on those trade numbers.

So I think there is often a reason to shift priorities a bit, as the issues of policy import do change. Over time there needs to be a response within the Government in the distribution of resources to what may be a changing set of needs for that information which is not lost in the process.

Senator **Sarbanes**. We have had Ms. Gramm before the committee. I must say to you I think she comes at it from an OMB perspective, which is essentially that we have to realize economies.

This is not a particularly sexy subject, although I must point out that the amount of money we are talking about is very small. A little bit of money can make a very significant difference in the quality of our statistics or in obtaining a new index, or something of that sort, which may be very important to policy judgment.

I guess I am really trying to prod the Council a bit, since the Council is a heavy user of statistics and an institution that should be sensitive to the importance of statistics, perhaps to play more of a role within the administration in trying to assure quality.

There is certainly a growing concern in the private sector as to the quality and relevancy of a lot of the statistical series.

Mr. **Moore**. Mr. Chairman, I would just like to add that one of the areas we have been very much concerned with has been measuring productivity in the service sector. As you may know, most of the official estimates of productivity in the service area have been zero, negative in some areas, and we are quite skeptical. But the problem of measuring, getting good data, and getting good estimates is not just one of throwing money at it. There are some real analytical problems there, and we are very much concerned with this. It is not something that there is a simple solution to.

Senator **Sarbanes**. No, but part of the problem is assuring the little bit of money you need to make the analysis in many of these instances. We have had the Bureau of Labor Statistics before us. They have been hampered simply in undertaking some of the very analyses that you are talking about, in order to see whether some of these series can be updated or shifted to take into account the significant changes that have come about.

Well, gentlemen, you have been very generous with your time, and I think I am going to bring this hearing to an end.

Mr. Moore, we did not get into the microeconomic issues today, and there are a number of those in the report, which I take it, according to the Chairman, is your bailiwick. Perhaps on some future occasion we might have the opportunity to have you back before the committee when we can focus on those issues.

Obviously, we have spent today on the sort of larger issues—where the economy is going and all the projections.

But we appreciate the testimony of the Council. We are very pleased to have had you back before the committee, and, Mr. Chairman, I simply say that I am glad as events develop that we found you back before us today testifying rather than out in the private sector, which was about to take place at some point last year, as I recall.

Mr. SPRINKEL. Thank you, sir. That makes two of us overjoyed. I appreciate the opportunity to testify before your committee.

Senator SARBANES. The committee stands adjourned.

[Whereupon, at 2:25 p.m., the committee adjourned, subject to the call of the Chair.]

THE 1988 ECONOMIC REPORT OF THE PRESIDENT

WEDNESDAY, MARCH 9, 1988

Congress of the United States,
Joint Economic Committee,
Washington, DC.

The committee met, pursuant to notice, at 10:03 a.m., in room 2175, Rayburn House Office Building, Hon. Paul S. Sarbanes (chairman of the committee) presiding.

Present: Senators Sarbanes and Proxmire; and Representatives Scheuer, Wylie, Snowe, and McMillan.

Also present: Judith Davison, executive director; and William R. Buechner and Christopher J. Frenze, professional staff members.

OPENING STATEMENT OF SENATOR SARBANES, CHAIRMAN

Senator Sarbanes. The committee will come to order. This morning, the Joint Economic Committee resumes its annual hearings in conjunction with the Economic Report of the President for 1988. We are very pleased to have as our witness this morning Hon. James A. Baker III, Secretary of the Treasury.

We are entering a year of unusual uncertainty with respect to the economic outlook. Most economists expect less growth in 1988 than in 1987, with growth forecasts generally running between 1.5 to 2.5 percent. The administration is somewhat on the high side, with a 2.4 percent forecast, while the CBO is projecting 1.8 percent growth, which is identical with the current Blue Chip consensus. Recent indicators have been giving something of a confusing impression of the economy's direction.

There are definite signs of strength in the economy, including the strong employment growth in February, the rise in disposable income, and the strong growth of exports in the fourth quarter of last year.

But there are also signs of weakness that obviously cannot be ignored, including the decline over the year in housing starts and construction spending, an inventory overhang from the fourth quarter of 1987, the unsettled outlook for oil-producing States as oil prices fall again, and the prospects for continuing slow growth in the rest of the world.

Given these divergent signals with respect to the economy's direction, economic policy must walk a tightrope. If economic policy becomes too restrictive, there is a serious risk of precipitating a recession. If, on the other hand, monetary and fiscal policies provide too much stimulus, there is the risk of overheating the economy and disrupting financial markets in anticipation of higher inflation.

Walking this tightrope is made more difficult by problems inherited from the recent past. Our continued dependence on foreign sources of capital has made monetary policy less autonomous, since we must keep one eye on the behavior of our foreign creditors while keeping the other on the performance of our domestic economy.

The effort to address the large Federal deficit places severe restrictions on fiscal policy, a problem that could become of significance if growth slows or the economy enters a recession.

Not only will 1988 be a difficult year for forecasters, it will also be an especially challenging year for policymakers, of whom, of course, the Secretary is the lead figure in the administration.

I will now turn to Secretary Baker for his comments on the economic outlook and on economic policy for 1988. But Mr. Secretary, before you begin, I think some of my colleagues have statements they may wish to make, and we'll defer until they've completed.

Congressman Wylie, who's the ranking Republican member of our committee.

OPENING STATEMENT OF REPRESENTATIVE WYLIE

Representative WYLIE. Thank you very much, Mr. Chairman. It gives me great pleasure to welcome you today, Secretary Baker. I'd like to take this opportunity to say that I think you have done a superb job and deserve much of the credit for implementing the policies that have kept the economy on a positive track now for the last 64 months.

This is the 64th month of economic expansion, the longest peacetime upswing in American history. I think the administration policies have led the economy out of a malaise and stagflation into 5 years of solid economic growth.

However, unlike in many other postwar expansions, this impressive economic progress was achieved under lower and not higher inflation. Economic growth is important because it generates employment and a higher standard of living. During this expansion, over 15 million new jobs have been created. Despite the mythology, most of these jobs were in the middle- and high-paying occupations, as we heard from Janet Norwood last Friday.

The United States has led the world in expanding employment and economic opportunity to all Americans. As a result, real median family income has risen. Over the course of this expansion, real family income has jumped 10.7 percent. Continued economic growth will generate further improvement in the American standard of living. By cutting excessive tax rates and regulation, the administration laid the foundation for the economic revival and your advice was certainly most meaningful there, Mr. Secretary.

Though much progress has been made we must not become complacent. The trade and budget deficits remain serious problems. However, we seem to be making encouraging progress in both deficits. The worst of each may be behind us.

In my view, the most difficult remaining problem is in the restraint of Federal spending and deficits. Congressional rules and practices are unable to control the powerful pressures generated by the special interest groups in support of increased spending. That's why I support a line-item veto on a balanced budget amendment to keep Federal spending in line.

Above all, what we don't need are tax increases. Federal revenues are projected to rise an average of $73 billion in each of the 5 fiscal years. This will add up to $365 billion to the revenue base by fiscal 1993.

If we can just hold the increase in Federal spending to one-half of the average annual rise in revenue, the deficit could be eliminated in 5 years.

Some of those ideas, Mr. Secretary, I got from your prepared statement. I look forward to your presentation. Thank you very much.

Senator **Sarbanes**. I am told that Senator D'Amato will not be able to attend today and has requested that his opening statement be placed in the record. Without objection, so ordered.

[The written opening statement of Senator D'Amato follows:]

WRITTEN OPENING STATEMENT OF SENATOR D'AMATO

MR. CHAIRMAN, I WOULD LIKE TO WELCOME TO THE JOINT ECONOMIC COMMITTEE THIS MORNING THE DISTINGUISHED SECRETARY OF THE TREASURY, JAMES A. BAKER III. I AM QUITE INTERESTED IN YOUR VIEWS ON THE ECONOMIC OUTLOOK FOR 1988.

IN THE TWO PREVIOUS HEARINGS ON 1988 OUTLOOK, WE HAVE HEARD SOME PRETTY ENCOURAGING NEWS ON THE ECONOMY. INTEREST RATES HAVE REMAINED LOW, THE NATION'S TRADE DEFICIT CONTINUES TO FALL, AND INFLATION HAS BEEN BROUGHT UNDER CONTROL. THE FOUNDATION OF OUR ECONOMY IS STRONGER THAN EVER. SINCE 1982, THE ECONOMY HAS GENERATED 15 MILLION NEW JOBS AND THE REAL MEDIAN FAMILY INCOME HAS CLIMBED 10.7 PERCENT.

JUST THIS PAST FRIDAY, COMMISSIONER JANET NORWOOD BRIEFED THIS COMMITTEE ON THE EMPLOYMENT FIGURES FOR THE MONTH OF FEBRUARY. THE NEWS THAT WE HEARD WAS VERY ENCOURAGING. THE UNEMPLYMENT RATE CONTINUED ITS DECLINE DROPPING 0.1 OF A PERCENT TO 5.7 PERCENT. THE NUMBER OF INDIVIDUALS EMPLOYED, AS SHOWN BY BUSINESS PAYROLLS, INCREASED APPROXIMATELY 530,000. THESE FIGURES ATTEST TO THE FACT THAT MORE AMERICANS ARE BEING EMPLOYED AND AS A RESULT, OUR ECONOMY IS GROWING STRONGER EVERY DAY.

SECRETARY BAKER, I LOOK FORWARD TO YOUR TESTIMONY AND TO YOUR VIEWS ON THE ECONOMIC OUTLOOK FOR 1988.

THANK YOU, MR. CHAIRMAN.

Senator **Sarbanes**. Mr. Secretary, we'd be pleased to hear—Bill, did you have a statement?

Senator **Proxmire**. Just a very brief statement.

Senator **Sarbanes**. Senator Proxmire.

OPENING STATEMENT OF SENATOR PROXMIRE

Senator **Proxmire**. Mr. Secretary, first, I want to congratulate you on the marvelous job you've done for our Government over the past several years. I've got great admiration for you. I think you're a real star in this administration.

However, I'm very unhappy about our fiscal policy and I think one of the reasons is because the administration has been so super-optimistic. Year after year after year, you predict that the budget deficit is going down and you've been wrong almost every—every time. Every time.

The last 8 years, you've underestimated the budget deficit every single year. Now, the chance that an honest, unbiased estimate would be wrong in one direction for 8 years in a row is 256 to 1 against. That's the kind of odds you get when you play the lottery.

And this kind of estimate is one of the reasons why we haven't had the nerve to do what we should do, which is increase taxes, and which is to cut programs or hold programs down. We have to do that. It's easy for me to say it. I'm not running for election again. It would be a lot harder if I were. But I think it's something that I hope you take into account.

I know that you can find ways of saying that you've been accurate in the past, but it would certainly surprise the dickens out of me because the budget deficit that comes to us, the first estimate, I've tallied it very, very carefully—it's been wrong year after year after year after year, without exception. Thank you, Mr. Chairman. I'll have some questions.

Senator **Sarbanes**. Mr. Secretary, we'd be pleased to hear from you.

STATEMENT OF HON. JAMES A. BAKER III, SECRETARY OF THE TREASURY

Secretary **Baker**. Thank you very much, Mr. Chairman. Let me first respond to Senator Proxmire's comments, if I might, and start by saying thank you, Senator, for what you said as you led into your initial comment.

I'm not sure I agree with you that we've been wrong year after year after year, particularly last year. But regardless of whether we have been or not, I think we might have been a lot closer to right, Mr. Chairman, if you'd passed the President's budget in even one of those years. You never passed the President's budget. So, how can you say we were wrong?

As far as our real GNP growth estimate this year is concerned, it's a very reasonable estimate. It's within the range of the private forecasters. Last year, we came in low. Last year, you told us we were too optimistic, that we'd come up here with a rosy scenario estimate and, as it turned out, it was too low, and growth was significantly greater than we anticipated or than we forecast.

The truth of the matter is, Mr. Chairman, over the past 7 years, our real GNP growth estimates have been too low four times and too high only three times in terms of our growth estimates.

But I'm sure that Senator Proxmire will have more that he wants to talk about on that subject later. So let me, if I might, summarize my prepared statement and ask that the prepared statement itself be included in the record.

Senator **Sarbanes**. The entire statement will be included in the record.

Secretary **Baker**. Let me start, Mr. Chairman, by saying that it's a pleasure to be here today to discuss the economic outlook, to discuss the administration's budget and to discuss the economic report.

As Congressman Wylie has indicated, the U.S. economy really exceeded almost all expectations in 1987. Prospects for continued expansion this year are, we think, very encouraging. Again, as the Congressman noted, we are in the 64th successive month of expansion in this country, the longest peacetime expansion on record. Income and employment has risen impressively and inflation has been held to a very moderate pace.

We, as I just mentioned, projected 3.2 percent real growth over the four quarters of 1987. The consensus of private economists projected a little less than 3 percent. As it turned out, real growth was 3.9 percent, exceeding our own projection as well as the consensus of private sector forecasters.

During 1987, the civilian unemployment rate dropped by nearly 1 full percentage point, from 6.7 percent in December 1986 to 5.8 percent in December 1987, which is the lowest rate in this decade.

Employment rose by about 3 million people in 1987, bringing the gain across the entire expansion to 14½ million new jobs. This is more new jobs than Western Europe and Japan have created together in the last two decades. And at the end of last year, the percentage of the working-age population that was employed in America was at an alltime high.

Last year's inflation rates were higher than they had been in 1986, but this reflected, of course, the 1986 drop and subsequent rise in oil prices.

The U.S. inflation rate has averaged less than 4 percent over this expansion, which I think is a truly remarkable achievement. In the past, the rate of inflation has typically risen as an expansion has proceeded, necessitating a more restrictive policy which could endanger continued economic growth. Suffice it to say that those inflationary pressures have not appeared in the current expansion.

Our progress in the manufacturing area, Mr. Chairman, has been particularly striking. Industrial production rose by 5.4 percent over the 12 months of 1987, following an increase of only a little more than 1 percent during 1986. Employment in manufacturing rose by 407,000 people during 1987, following declines in each of the 2 previous years.

Much of the rebound in America's manufacturing reflects a revival of exports as a more reasonably valued dollar lets the competitiveness of U.S. producers shine through. In volume terms, the U.S. merchandise exports in the four quarters of 1987 rose almost twice as fast as any other yearly increase in this expansion.

By almost any criteria, this has been a sound economic performance. It's been one that should serve as a solid foundation for continued growth in this coming year.

The administration's forecast for 1988 reflects the divergent forces that had emerged by the end of 1987. On the one side, industrial production remains robust; on the other, consumer demand appears to be slowing. Consequently, we expect real growth to moderate from the 3.9 percent across the four quarters of 1987 to 2.4 percent during 1988.

On balance, inflation in 1988 should be little changed from what it was in 1987. We project consumer prices to increase in 1988 by a little less than in 1987.

We expect real GNP to rebound to a growth rate of 3½ percent across the four quarters of 1989.

Mr. Chairman, it's our judgment that if sound economic policies are pursued, including steady, moderate growth of the monetary aggregates and continued reduction in the budget deficit through restraint of spending, there's no reason for the turmoil in financial markets of last fall to lead to an economic downturn.

An important impetus to growth this year should come from further improvement in our trade balance. The impact of the decline in the dollar in foreign exchange markets, accompanied by policies designed to stimulate growth abroad, has led to a shift in the composition of U.S. gross national product growth toward rising exports and substitution of domestic production for imports. Since the third quarter of 1986, when the dollar merchandise trade deficit in volume terms was at its widest, improvement in the real merchandise trade balance has accounted for fully one-fifth of the growth of real gross national product in the United States.

The agreements that were made by the major industrial countries, as evidenced at the Louvre last February, in Washington last April, and in last December's Group of Seven statement, paved the way for continued resolution of external imbalances and hence, additional export-led growth for the United States.

The U.S. deficit spending is being curtailed. Japan is pursuing economic policies to sustain strong domestic growth. Germany has taken measures to improve growth, including advancing tax cuts and providing additional investment incentives. So, Mr. Chairman, with the world economy just starting to benefit from our efforts to encourage international cooperation, we really could not pick a worse time to resort to protectionism here in the United States. Nothing would more surely close foreign markets and create unnecessary uncertainty than legislation which closes our markets.

This is also true for the flow of investment, every bit as much as for the flow of goods and services. We welcome and we invite foreign investment in the United States; we have always throughout our history. Investment, foreign and domestic, generates jobs, it generates output, it generates technology, and it generates managerial skills. All of these are good for the U.S. economy.

That foreigners are willing to invest in the United States is a sign of its strength. Erecting obstacles to foreign capital inflows would threaten this economic vitality. It would reduce, not enhance, U.S. competitiveness. And it would lower standards of living both in the United States and abroad.

We made substantial budget progress in fiscal 1987, Mr. Chairman. The final statistics show a $150 billion deficit, which is 3.4 percent of gross national product, down $71 billion from the $221 billion, or 5.3 percent of gross national production, in fiscal 1986. Relative to GNP, the 1.9 percentage point reduction in a single year is a major accomplishment. Even though we benefited somewhat from higher than expected revenues from the Tax Reform Act of 1986, the keys to our success were, and must continue to be, spending restraint and sustained economic growth. After adjusting for inflation, Federal outlays actually fell in fiscal 1987, the first such decline in 14 years.

Looking forward, we made even further progress as a result of the 1987 budget summit and its associated legislation. This is reflected in the substantial improvement in the current services estimates. Under current service projections, the deficit is projected to fall significantly in the coming years. But, of course, there is still much work to be done.

Congressional adoption of the President's budget proposals to implement the remainder of the budget summit agreement would continue to move the Federal Government along the path of needed expenditure control and it would reduce the deficit even faster. Because of the progress that's been made to date, the policy changes in the President's budget relating to deficit reduction are not as large as they have been in previous budget submissions, and they really should be readily achievable by the Congress.

The proposed budget would reduce the deficit from $147 billion in fiscal 1988 to $130 billion in fiscal 1989, from 3.1 percent of GNP to 2.6 percent of GNP, a clear message to the American people and to financial markets that deficit reduction is firmly in place. The deficit would be reduced to $23 billion in fiscal 1993, which would be only four-tenths of 1 percent of GNP.

Two important turning points are projected in our 1989 budget. These turning points reinforce the message to financial markets that the deficit is under control. As the first chart which is attached to my prepared statement demonstrates, interest payments on Federal Government debt as a share of the budget are projected to decline after fiscal 1988. No longer, Mr. Chairman, will growing interest payments force contraction in other parts of the budget.

As the second attached chart shows, the economy is growing faster than the national debt is growing. By fiscal 1992, the debt will be rising less rapidly than the rate of inflation and will actually be falling in real terms.

Mr. Chairman, the American people are not undertaxed; the Government has overspent. As shown by the third chart attached to my prepared statement, Federal revenues as a share of GNP have generally exceeded their 1964 to 1979 average during the past 7 years and are projected over the next 6 years to average 1 full percentage point above this historical norm. Meanwhile, the Federal budget's outlay share of the GNP has on average exceeded the 1964 to 1979 average by 3.5 percentage points during the past 7 years.

This budget does not contain any major new tax proposals. In light of the landmark changes in our tax structure brought about by the Tax Reform Act of 1986, it is imperative that we give individual taxpayers, businesses, investors, and, yes, even Government, some breathing room, a chance to adapt.

While we are succeeding in reducing our budget deficit, Mr. Chairman, the budget process itself has fallen into disarray. For 2 consecutive years, Congress has delivered a mammoth omnibus appropriations bill well into the fiscal year that must be signed in a matter of hours, or else the Government has to shut down. The budget process, in our view, should be reformed, root and branch.

Mr. Chairman, we enter 1988 with cautious optimism. The economy continues to exhibit considerable forward momentum. Employment growth remains strong and inflation is under control. The continued restraint of Government spending in the President's fiscal 1989 budget is an extension of the policies that have promoted strong, sustainable, noninflationary economic growth. And I am sure that by working together, the administration and the Congress can provide a budget that consolidates our hard-fought gains on deficit reduction without sacrificing funding for the necessary and important functions of government.

Mr. Chairman, I'd be pleased to try and respond to the committee's questions.

[The prepared statement of Secretary Baker, together with attached charts, follows:]

PREPARED STATEMENT OF HON. JAMES A. BAKER III

Mr. Chairman and Members of the Committee:

It is a pleasure to meet with you today to discuss the economic outlook and the Administration's budget.

1987 in Review

The pace of U.S. economic growth improved in 1987, exceeding almost all expectations. Prospects for continued expansion this year are encouraging despite the stock market decline. Exports are growing strongly and the improving real trade balance continues to add to domestic output growth. We have made considerable progress on the Federal budget deficit. Last year's budget summit and ensuing legislation were positive steps toward ensuring that this progress will continue.

The current expansion is now in its 64th month and is the longest peacetime U.S. expansion on record. Income and employment have risen impressively while inflation has been held to a moderate pace.

While our focus today should be on the present and the future, it is worthwhile to review last year's experience. At the beginning of last year, some forecasters doubted that a strong expansion would continue. The Administration was criticized by some for issuing an overly optimistic forecast. We projected 3.2 percent real growth over the four quarters of 1987. The consensus of private economists projected a little less than 3 percent growth and a few economists were warning of recession. As it turned out, real growth was 3.9 percent, exceeding our own projection as well as the consensus of private sector forecasters.

Continued expansion of the economy last year led to lower unemployment rates and a high rate of job creation.

- During 1987, the civilian unemployment rate dropped by nearly one full percentage point from 6.7 percent in December 1986 to 5.8 percent in December 1987, the lowest rate of this decade. The unemployment rate for blacks was down by 1-1/2 percentage points and that for Hispanics by more than 2 percentage points.
- Employment rose by about 3 million persons in 1987, bringing the gain across the entire expansion to more than 14-1/2 million. This is more jobs than Western Europe and Japan have created in the last two decades. By the end of last year, the U.S. employment ratio (those working as a proportion of the working-age population) was at an all-time high.

Last year's inflation rates were higher than they had been in 1986 but this reflected the 1986 drop and subsequent rise in oil prices. The U.S. inflation rate has averaged less than 4 percent over the expansion--a remarkable achievement. In the past, the rate of inflation has typically risen as an expansion has proceeded, necessitating more restrictive policy which could endanger continued economic growth. But such inflationary pressures have not appeared in the current expansion.

Our progress in the manufacturing area has been particularly striking. The resurgence of U.S. manufacturing was an important feature of last year's economic developments.

- Industrial production rose by 5.4 percent over the twelve months of 1987, following an increase of only a little more than 1 percent during 1986.
- Employment in manufacturing rose by 407,000 during 1987, following declines in each of the previous two years.
- In 1986, the last year for which full international data are available, the United States was the only one of twelve major industrialized countries to register a decline in unit labor costs in manufacturing.
- Much of the rebound in manufacturing reflects a revival of America's exports as a more reasonably valued dollar lets the competitiveness of U.S. producers shine through. In volume terms, U.S. merchandise exports in the four quarters of 1987 rose almost twice as fast as any other yearly increase in this expansion.

By almost any criteria this has been a sound economic performance, one that should serve as a solid foundation for continued growth in the coming year. Hurdles remain, but they can be overcome with appropriate and timely policy choices.

In the fiscal area, we made welcome progress in reducing the Federal budget deficit. In the 1987 fiscal year concluded last September, the deficit fell by $71 billion--the largest single-year decline on record. While special factors accounted for some of the decline, the key ingredients were spending restraint and robust economic growth. Remarkably, Federal outlays actually fell in real terms for the first time in 14 years.

The budget agreement between the President and the joint leadership of Congress reached late last year is a significant step toward assuring continued fiscal restraint. We believe that we have shown the public and the financial community that the Administration and Congress are able to work together to get control of the Federal deficit.

On the monetary front, 1987 was a year of adjustment by the Federal Reserve. As 1987 began, it was clear that the pace of expansion in the monetary and reserve measures in late 1986 had been excessive and that inflationary expectations were being rekindled. Thus, some deceleration of monetary growth was desirable. The Fed, however, responded immediately to the stock market crash in October in a successful, and widely praised, effort to provide needed liquidity to the financial system. By the end of the year, interest rates were down from their October highs, but moderately higher than they had been at the beginning of the year.

Economic Forecast for 1988 and Beyond

The Administration forecast for 1988 reflects the divergent forces that had emerged by the end of 1987. On the one side, production remains robust as the industrial sectors demonstrate substantial forward momentum. On the other side, domestic demand appears to be slowing as consumers respond to the dramatic decline in stock prices last fall and the lagged effects of a more cautious monetary policy during last spring and summer. Consequently, we expect real growth to moderate from the 3.9 percent across the four quarters of 1987 to 2.4 percent during 1988.

On balance, inflation in 1988 should be little changed from 1987. We project consumer prices to increase in 1988 by a little less than in 1987.

Following relatively moderate real GNP growth this year, we expect a rebound to a growth rate of 3-1/2 percent across the four quarters of 1989. For the years thereafter, we have projected that the economy will gradually move to a position of relatively full utilization of resources. Of course, it is impossible to forecast the exact path of activity over the longer term, and we recognize that actual movements of the economy will be far more cyclical than the smooth path in these working assumptions.

The Administration forecast of real growth this year is well within the range of private forecasts. It is just slightly ahead of the Blue Chip consensus of about 1.8 percent, fourth quarter to fourth quarter, which is also the figure projected by the Congressional Budget Office. As already noted, our forecast for 1987 came closer to the mark than either the private consensus or CBO. The Administration forecast has underpredicted real growth in three of the last five years of economic expansion.

Admittedly, there are a number of uncertainties in the outlook for this year. When we first began preparation of the forecast for the FY 1989 budget, the decline in the stock market had only recently occurred. Many private analysts were predicting that its impact on household balance sheets and hence on consumer spending would be so severe that the economy would be tipped into recession. Other analysts were more impressed by the considerable forward momentum of the economy and were concerned that it would proceed at such a pace as to reignite inflationary pressures.

Subsequent events appear to have confirmed that the middle course chosen for the Administration forecast was the correct one.

- Clearly, the forward momentum of last fall has been tempered. Consumer spending slowed somewhat toward the end of 1987, perhaps partly in response to the stock market decline, though the pattern of consumer spending had softened somewhat earlier in the year. Inventory imbalances have emerged in scattered segments of the economy, most notably at retail trade.

- On the other hand, the pace of new order placement with manufacturers and the mounting backlog of unfilled orders confirm that there remains substantial forward momentum in the industrial sector.

- Moderation of consumption, higher saving and rising orders have coincided with a shift in activity toward export-led growth and a larger role for business fixed investment.

It is our judgment that if sound economic policies are pursued -- including steady, moderate growth of the monetary aggregates and continued reduction in the budget deficit through restraint of spending -- there is no reason for the turmoil in financial markets of last fall to lead to an economic downturn. Nor would there be reason for the forward thrust of the industrial sector to get out of hand and generate the types of excesses that eventually resulted in downturns in the past.

An important impetus to growth this year should come from further improvement in our trade balance. The impact of the decline in the dollar in foreign exchange markets, accompanied by policies designed to stimulate growth abroad, has led to a shift in the composition of U.S. GNP growth toward rising exports and substitution of domestic production for imports. Since the third quarter of 1986, when the dollar merchandise trade deficit in volume terms was at its widest, improvement in the real merchandise trade balance has accounted for fully one-fifth of the growth of real GNP, as the real volume of our merchandise exports rose at an annual rate of 19 percent while imports increased at a rate of only 4 percent. The latter represents a marked slowing from the 14 percent annual rate of growth averaged across the three previous years.

- The dramatic improvements in the tradable goods sector of our economy are illustrated by the increase in production of steel by U.S. mills of one-third in the fourth quarter of last year from a year earlier. This, along with a rationalization of productive capacity, has propelled the capacity utilization rate in the steel industry to 95 percent, the highest since 1978.

- To cite another example, the value of shipments in the semiconductor industry jumped 13 percent last year measured in nominal terms and by more than that if correction is made for declining prices in the industry. The trade gap in semiconductors has been cut by more than one-half from the $2-1/4 billion deficit in 1984.

Overall, rising production has pushed up operating rates to some of the highest levels witnessed since the 1960s in such industries as paper and textiles. These high capacity utilization rates, along with a dramatic improvement in profits in the industrial sector, imply continued strength in business capital spending, another element pointing to sustained economic expansion during 1988.

An additional positive influence this year is the full implementation of the Tax Reform Act of 1986. Though impossible to isolate, some economic activity may well have been postponed until this year when tax rate reduction became fully effective. Spendable incomes of consumers were boosted at the start of 1988 by the reduction of 6 or 7 percent in withholding, though a portion of that is being offset by higher social security tax rates.

The International Economy

With the U.S. economy turning to export-led growth, developments abroad play an important role in our 1988 outlook. Last year real GNP in the industrial countries grew nearly 3 percent -- the fifth year of sustained expansion from the 1982 recession. We expect another year of 2-1/2 to 3 percent real growth in 1988. Inflation in the OECD countries in the last two years has reached the lowest rates since 1967, and should remain low.

We are also beginning to see progress in reducing external imbalances worldwide, even though more needs to be achieved. Patterns of demand are changing. Last year demand from domestic sources in the United States moderated, while foreign demand for our exports grew sharply. In 1987 real net exports of goods and services added to domestic output growth for the first time since 1982. With domestic demand abroad likely to remain considerably stronger than in the United States, the real trade balance should continue to improve. Furthermore, this substantial strengthening in our real trade balance should also be reflected by lower nominal trade and current account deficits this year.

Over the past years, the major industrial countries have intensified efforts to strengthen international economic policy coordination. The key focus of these efforts has been to achieve reductions in external imbalances in the context of sustainable noninflationary growth and greater exchange market stability. We have made substantial progress in achieving these goals.

At the Tokyo and Venice Summits, the Heads of State or Government of the Economic Summit countries developed and refined a new coordination process, using economic indicators, to assess the consistency and mutual compatibility of policies and to determine if a significant deviation from an intended course was emerging, requiring remedial action. The major countries have also agreed on the basic directions that their policies should follow and--as evidenced at the Louvre last February, in Washington last April, and in last December's Group of Seven statement--have made specific commitments to achieve these ends. U.S. deficit spending is being curtailed. Japan is pursuing economic policies to sustain strong domestic growth, including monetary policies to accommodate declining interest rates. Germany has taken measures to improve growth, including advancing tax cuts, providing additional incentives to investment and reducing short-term interest rates.

The substantial changes in currency values that have occurred are contributing importantly to the reduction of external imbalances. The major industrial nations have agreed, however, that a further decline in the exchange rate of the dollar could be counterproductive. Therefore, the United States has and will continue to work closely with its major trading partners to foster exchange rate stability and I want to assure you that the U.S. will do its part in this effort.

Despite the substantial progress that has been made, there is clearly room for further improvement. We need to make coordination a more effective process for encouraging the sound policies necessary for improved global growth and financial stability. One potentially helpful measure, which I proposed in my speech to the Annual Meetings of the World Bank and IMF, is the use of a commodity price index including gold, as one indicator, among others, of global inflationary and deflationary trends.

In the area of trade policy, the Administration has gone to unprecedented lengths to open up foreign markets, although these measures, of course, can only reinforce our macroeconomic efforts to moderate our international imbalances. We have negotiated a comprehensive bilateral arrangement with enormous potential economic significance, the Free Trade Agreement with Canada. I would like to elaborate briefly on this because of the unprecedented opportunities it presents. Under it, both countries will eliminate tariffs with their largest trading partner, protect rights of investors, enhance energy security, establish a framework for services, and remove many irritants. We have also negotiated a framework agreement with Mexico to address trade and investment issues.

It was largely as a result of our initiative and persistence that the Uruguay Round was launched. We are now through the first stage, that of identifying issues, and are moving into substantive negotiations. We hope, through a mid-term review, to have some preliminary results this fall, particularly in the very important area of agriculture. Bilaterally, we continued to maintain strong measures against unfair foreign trade practices, taking on issues like Japanese cigarette restrictions, Korean insurance, EC subsidies on canned fruit, and Taiwan's restrictions on alcohol.

In view of the recent rapid expansion in U.S. exports, it is particularly important to maintain the momentum in our market opening efforts. Protectionist legislation is always bad. But this would be perhaps the worst of times. Our exporters and their employees are starting to benefit enormously, some from several hard years of cost-cutting and reorientation as well as from international developments. Nothing would more surely close foreign markets and create unnecessary uncertainty than legislation that closes our markets. We should work together to avoid that.

A sound world economy also requires further progress in dealing with the debt problems of the developing countries. The United States will continue to play an active role in coordinating international efforts to address those problems. The success of the present strategy depends critically upon debtor countries' efforts to improve growth in their own economies. Support for market-oriented reforms through new financial flows from international financial institutions and commercial banks is also essential.

Considerable progress has been made under this strategy during the past two years. To help sustain these efforts and ensure adequate international support, we have supported negotiations on a global capital increase for the World Bank. We have also proposed the creation of a new IMF External Contingency Facility to help cushion the effect on IMF standby programs of unforeseen external developments, such as weaker commodity prices or sustained higher interest rates. And, we have encouraged the development of a "menu" of alternative financing options.

In contrast, so-called "comprehensive" or "global" solutions involving transfer of the problem to taxpayers in creditor countries are unacceptable. In addition to the major cost to taxpayers, these proposals are even counterproductive to long-term growth because they would discourage new private money flows in the future, fail to secure market-oriented adjustments in debtor nations, irreparably politicize the problem by consolidating it in a centralized forum and encourage debt repudiation.

Budget and Deficit Overview

We made substantial budget progress in FY 1987. The final statistics show a $150 billion deficit (3.4 percent of GNP) in FY 1987, down $71 billion from the $221 billion (5.3 percent of GNP) in FY 1986. Relative to GNP, the 1.9 percentage point reduction in a single year is a major accomplishment. Even though we benefited somewhat from higher than expected revenues from the Tax Reform Act of 1986, the keys to our success were, and must continue to be, spending restraint and sustained economic growth. After adjusting for inflation, Federal outlays actually fell in FY 1987, the first such decline in 14 years.

Looking forward, we made even further progress as a result of the 1987 Budget Summit and the associated legislation. This is reflected in the substantial improvement in the current services estimates. Under current services projections, the deficit is projected to fall significantly in the coming years. Earlier in the decade, in the wake of the 1980 and 1981-82 recessions, Federal debt was rising as a share of GNP, and debt service was rising as a share of the budget. Today, we project under current services that Federal debt held by the public as a share of GNP will be flat in FY 1988 and FY 1989, and fall thereafter. Net interest will be falling as a share of GNP in FY 1989 and will be declining absolutely by FY 1992. Still, there is work to be done.

Congressional adoption of the President's budget proposals to implement the remainder of the budget summit agreement would continue to move the Federal Government along the path of needed expenditure control, and reduce the deficit even faster. Because of the progress that has been made to date, the policy changes in the President's budget relating to deficit reduction are not as large as in previous budget submissions, and should be readily achievable by the Congress. The proposed budget would reduce the deficit from $147 billion in FY 1988 to $130 billion in FY 1989 (from 3.1 percent of GNP to 2.6 percent)--a clear message to the American people and to financial markets that deficit reduction is firmly in place -- and to $23 billion in FY 1993 (0.4 percent of GNP).

Two important turning points are projected in the FY 1989 budget. These turning points reinforce the message to financial markets that the deficit is under control. As the first attached chart demonstrates, interest payments on Federal government debt as a share of the budget are projected to decline after FY 1988. No longer will growing interest payments force contraction in other parts of the budget. As the second attached chart shows, the economy is growing faster than the national debt. By FY 1992 the debt will be rising less rapidly than the rate of inflation, and will actually be falling in real terms.

Federal receipts will be growing strongly in absolute terms as the economy itself grows, and as previously scheduled increases in payroll taxes become effective this year and in 1990. Receipts are projected to rise by an average of almost 8 percent annually between FY 1987 and FY 1993, just under the 9 percent rise averaged in the previous seven-year period. Receipts are expected to remain at a relatively constant share of GNP, over the next six years, between 19.2 and 19.5 percent.

The American people are not undertaxed; the Government has overspent. As shown by the third chart attached to my statement, Federal revenues as a share of GNP have generally exceeded their 1964-1979 average during the past seven years and are projected over the next six years to average one full percentage point above this historical norm. In contrast, the Federal budget's outlay share of the GNP has, on average, exceeded the 1964-79 average by 3.5 percentage points during the past seven years. Continued spending restraint, as proposed in the FY 1989 budget, should shrink the share of GNP spent by the Federal government to 19.8 percent in 1993, the lowest it has been since the late 1960s.

This budget does not contain any major new tax proposals. In light of the landmark changes in our tax structure brought about by the Tax Reform Act of 1986, it is imperative that we give individual taxpayers, businesses, investors, and even government, some breathing room -- a chance to adapt. At this time, the single most important contribution to the tax code that Congress can make is prompt enactment of technical corrections to the 1986 Act; and the top tax policy priority at Treasury is completing the implementation of that Act, by issuance of regulations, rulings, and notices which provide taxpayer guidance.

It is especially important that we do not allow the tax reform accomplished in 1986 to be undone. In particular, we must maintain the low rates of taxation for both individuals and corporations. We must not let taxpayers be whipsawed by a tax law that is continually changing. Businesses as well as individuals require a stable tax environment in order to make sensible economic decisions. There are no more important ingredients to sustained economic growth than low tax rates coupled with the promise of certainty.

The summit agreement brings us much closer to a Federal government whose spending takes a relatively smaller proportion of GNP from the private sector. We are confident that the deficit can and should be reduced by continuing to shrink the scope of government through spending restraint and economic growth, rather than by tax rate increases.

Priorities

Last year's budget summit agreement was a major step toward consolidating these gains. That agreement conveyed two important messages to the American people. First, it demonstrated the willingness and the ability of the Administration and the Congress to work together constructively for the common good of the Nation. Second, it signalled that both the Administration and the Congress would not accept government spending set on automatic pilot via the sequestration process in the Gramm-Rudman-Hollings legislation. Make no mistake, automatic spending cuts are preferable to some alternatives, such as no spending cuts at all or higher taxes that slow the economy and undo the benefits of tax reform. But automatic cuts ignore priorities: Programs that may legitimately deserve additional funding are cut right along with those programs that may have outlived their usefulness.

The budget plan proposed by the President continues along the deficit reduction path. It complies with the summit agreement, completing the second part of the $76 billion deficit reduction package, and it provides funding for critical functions of government while cutting back or, in some cases, terminating funding of outmoded programs.

As agreed at the summit, the President's budget provides the financing for the core elements of our defense and international programs. Moreover, discretionary domestic programs will be permitted only a net increase of 2 percent over the level estimated for FY 1988. However, some programs, such as those for education, drug enforcement, and technology development receive larger funding increases, while others are reduced, reformed, or proposed for termination. Examples of programs proposed for termination include the rural housing insurance fund, the Economic Development Administration, Urban Development Action Grants, and Small Business Administration direct loans. The exercise of such priorities is consistent with the agreement and is an essential element in a dynamic Government's efficient adaptation to a changing world and changing needs.

An often overlooked element of spending control is the transfer of the provision of some goods and services from the Federal government to the private sector. It has become increasingly clear that the government and the private sector should do what each does best. The Federal government should not provide goods and services that can be more effectively and more efficiently produced by the private sector. Moreover, government actions and policies often interfere with the proper function of the private sector. A major theme of the President's FY 1989 budget is regulatory relief and privatization. It is important to note that the strategy of privatization does not necessarily imply the elimination of goods and services now provided by the government. Rather, it would make private alternatives available. In this way, it ensures the production of the goods and services actually demanded by consumers, not those chosen by the government.

The Budget Process

While we have experienced success in reducing the budget deficit, reforming the tax code, and releasing resources for private use, the budget process itself has lapsed into disarray. Last year the budget process failed to provide us with an opportunity to decide many important budget matters on their merits. The failure occurred despite the submission of a timely budget proposal by the Administration. This is not responsible governance. The budget process should be reformed, root and branch. In his legislative message, President Reagan has proposed numerous detailed reforms to the budget process, including adoption of a line-item veto, the balanced budget amendment to the Constitution with a super-majority vote required for tax increases, a joint budget resolution to be signed by the President to set Congressional budget priorities, and enhanced Presidential rescission authority. To help us make further significant progress in reducing the budget deficit, the Congress should act on budget reform this year.

Conclusion

We enter 1988 with cautious optimism. While the dramatic decline in stock prices last fall has clouded the outlook, the economy continues to exhibit considerable forward momentum. Employment growth remains strong and inflation is under control even as the economy shifts over to export-led growth and more emphasis on investment. The current economic expansion--the longest on record during peacetime--is displaying few of the imbalances that have jeopardized other expansions. The extraordinary length of this expansion does not necessarily imply an impending downturn as some analysts suggest. Expansions do not die of old age; they have typically been aborted by erratic and inappropriate policy changes.

The continued restraint of government spending in the President's FY 1989 budget is an extension of the policies that have promoted strong, sustainable, noninflationary economic growth. In confronting the uncertain events that will evolve in the coming year, it is imperative for us to resist additional government involvement as a solution to short-run problems. Such involvement has been unsuccessful in the past and ultimately becomes part of the problem rather than part of the solution. I am sure that by working together the Administration and the Congress can provide a budget that consolidates our hard-fought gains on deficit reduction without sacrificing funding for the necessary and important functions of government.

Chart 1

SHARES OF TOTAL BUDGET OUTLAYS

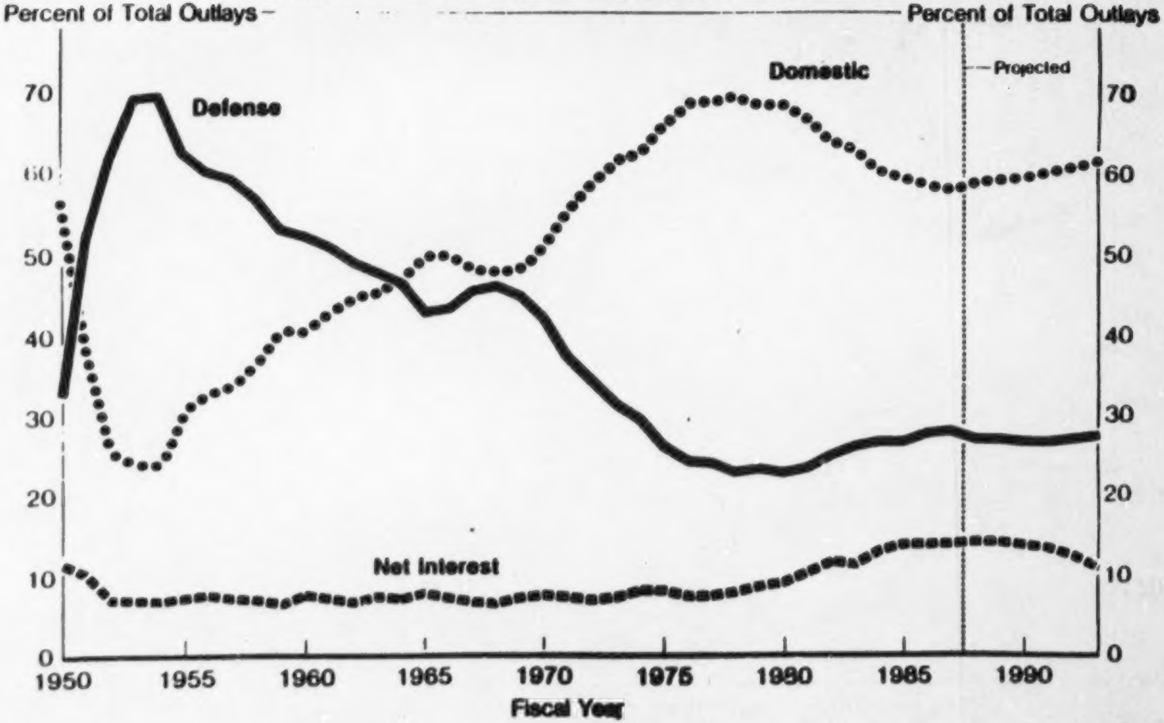
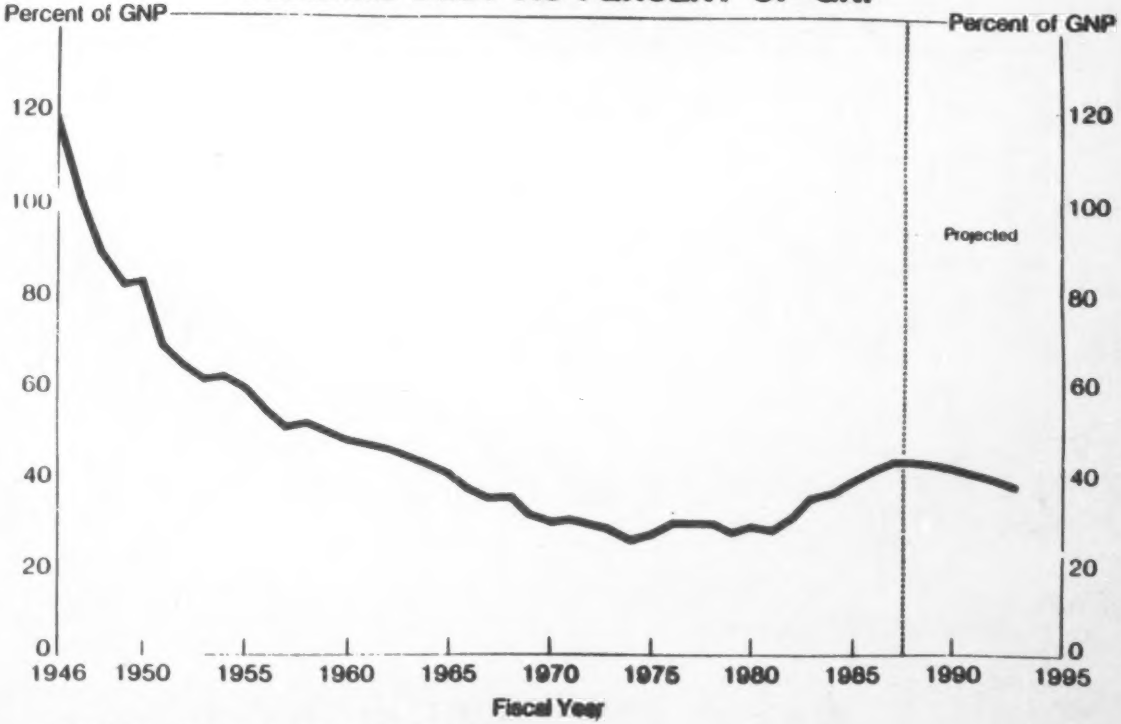


Chart 2

FEDERAL DEBT AS PERCENT OF GNP

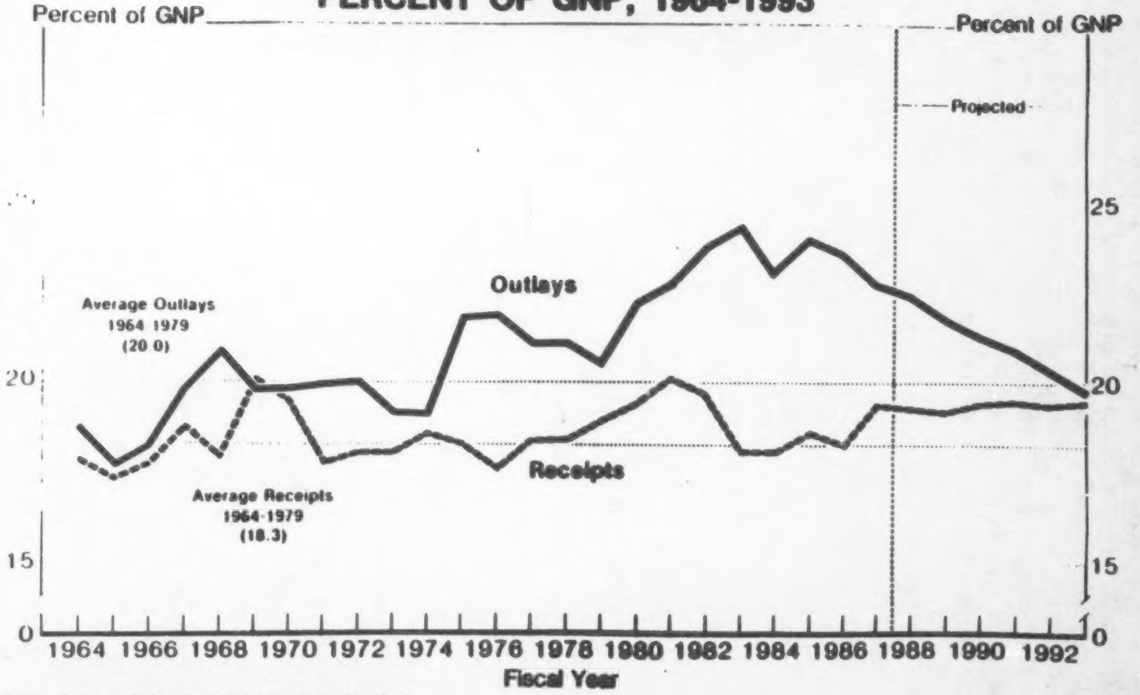


Note Debt held by the public, including the Federal Reserve.

February 26 [illegible]

Chart 3

OUTLAYS AND RECEIPTS AS PERCENT OF GNP, 1964-1993



Note: Totals include off budget receipts and outlays
Data for 1988-1993 from FY 1989 Budget

February 26 [illegible]

Senator **Sarbanes**. Thank you very much, Mr. Secretary, for your statement. I'll say to the members of the committee that we'll take a 10-minute round each.

Mr. Secretary, I have one process question I want to put to you right in the beginning. I think there's general agreement in the Congress and the executive that the appropriation bills ought to come to you separately and not in one all-embracing, continuing resolution.

But simply to set the record straight, isn't it the case that last year, at the time the budget agreement was reached between the Congress and the executive, part of the agreement was that the appropriation bills would be presented as a package in order for the administration and the Congress to be in a position to judge that the agreement had been complied with, rather than being sent separately, which would have created the problem as we moved along in determining compliance or noncompliance?

Secretary **Baker**. Well, we would have been willing to see the appropriations bills come down beforehand. What we really did insist on, Mr. Chairman, was that the reconciliation bill not be presented separately so that we would be put in a position of signing a tax bill without knowing whether the agreed upon spending cuts had been achieved.

Senator **Sarbanes**. That's right. But——

Secretary **Baker**. I wouldn't quarrel with your conclusion. It is also true that in the past, on a couple of occasions, there's been agreement between the executive and legislative branches that some appropriations bills be held and sent down as a group or held for the continuing resolution.

But the real problem is that in many instances, there has not been such an agreement over the past 7 years and we've not received the 13 appropriations bills, as is called for by the normal budget process, in any one year since we've been here.

We think we need to get back to that. We're pleased that the Congress thinks we need to get back to that.

Senator **Sarbanes**. I think that it clearly will happen this year, since there's been an overall agreement on what the broad outlines of the budget are to be.

But I think it's important for the record to recognize that part of the agreement was that the reconciliation bill and, in effect, the budget bill would come to you together, so that you'd be in a position to judge the total package and assess the compliance with the overall agreement which had earlier been struck between the Congress and the executive branch.

Secretary **Baker**. To state it exactly the way it was, as I remember it, and I was a party to it, we said: Don't send us the tax bill without sending us the spending bills at the same time. Don't put us in a position of having to sign a tax bill and then hope we get the spending reductions.

We played that game back in 1982 and we got hooked. I believe that we didn't want the same to happen in 1987. If you want to characterize that as an agreement on the appropriations bills, it's fair enough with me. I'd have no quarrel with that.

Senator **Sarbanes**. All right. You're projecting a declining deficit year to year through 1993. But you do make the statement in your prepared remarks, "Of course, it is impossible to forecast the exact path of activity over the longer term and we recognize that actual movements of the economy will be far more cyclical than the smooth path in these working assumptions."

Your working assumptions are of a very smooth path and the economy moving from strength to strength. There are some who think that that's, in a sense, unrealistic because we have the cyclical phenomenon.

Let me put this question to you. What policy do you think should be pursued if there should be a downturn in the economy?

Secretary **Baker**. Well, we don't forecast a downturn, Mr. Chairman, and therefore, I would not want, by answering hypothetical questions, to suggest that we see a downturn in the offing. We really don't.

As you know, some people have said since early 1983 that the economy was going to fall into recession, that it was going to go off the cliff, that the wheels were going to come off. And that hasn't happened. The current expansion is 64 months old now. We don't think that there's any reason why we can't continue to see the slow, steady, moderate, sustained, noninflationary growth that we project if we follow the appropriate policies, if we continue to exert a discipline to cut spending, and if we don't raise taxes.

I think that if growth falters, then we'd have to take a look, or the people in charge of making policy at that time would have to take a look, and decide what they're going to do.

But you can't sit here now, I don't think, and forecast that.

Senator **Sarbanes**. Would you agree, though, that our options are very limited, in terms of what we could do, if we should have a downturn?

Secretary **Baker**. Well, I don't know that our options are as wide ranging as they might be. But, I think they would have been more limited had we had a downturn between 1983 and 1988. But we didn't have it. And I don't think we should assume that a downturn is going to happen. It would appear now that it's not going to occur, at least as a consequence of what happened in the markets in the middle of October of last year.

Senator **Sarbanes**. On the monetary policy side, where you say that we need steady, moderate growth of the monetary aggregates, what does that suggest for interest rates?

Secretary **Baker**. Well, I've stayed away from predicting interest rates, Mr. Chairman, for the 3 years that I've been Secretary of the Treasury, and it's been a very good thing to do. I don't want to start predicting them now, other than to point you to the administration's formal assumptions.

Senator **Sarbanes**. Well, let me just lead into those with a further question. You've been predicting faster growth than the Blue Chip indicators have predicted for the coming year.

Secretary **Baker**. We do predict it for the coming year.

Senator **Sarbanes**. Right.

Secretary **Baker**. But only, I think, by six-tenths of 1 percent.

Senator **Sarbanes**. And at the same time, you predict lower interest rates than they predict.

Secretary **Baker**. That's correct.

Senator **Sarbanes**. So you're in the situation of predicting greater growth and lower interest rates. How do you square that?

Secretary **Baker**. Well, so far, that's what has happened. We are being borne out by what has taken place since we formulated those estimates late last year. Interest rates are a lot closer to what we've predicted than to what CBO has predicted. Growth appears to be closer to what we've predicted than to what CBO has predicted.

I would also justify it by pointing you to the estimates that were made last year, which people said were too rosy. CBO was not as optimistic. It turned out that we were right and CBO was wrong.

Senator **Sarbanes**. What's your current view of the monetary policy being pursued by the Fed?

Secretary **Baker**. I am in fundamental agreement with the monetary policy being pursued by the Federal Reserve.

Senator **Sarbanes**. And how long has that been the case?

Secretary **Baker**. That's been the case for some time, quite some time. As a matter of fact, going back before the change of chairmanship of the Board of Governors.

Senator **Sarbanes**. Did you not think the Federal Reserve was pursuing too restrictive a policy last year, at some point last year?

Secretary **Baker**. I have always said, Mr. Chairman, that I consider the policy being pursued by the Fed to be either adequate, or I have said upon occasion that I am in fundamental agreement with it. Beyond that, I've really made no public comment.

Senator **Sarbanes** In your prepared statement, you mention that both Japan and Germany have sought to reduce their trade surpluses by reducing short-term interest rates to stimulate their domestic economies.

I'm a little concerned as to why we regard this so positively, since low interest rates abroad would stimulate the flow of capital to the United States, strengthening the dollar and retarding the improvement of our trade deficit.

Wouldn't it be better for them to pursue a combination of fiscal stimulus and monetary restraint?

Secretary **Baker**. We think that whatever those surplus countries can do, Mr. Chairman, to increase their domestic demand and to increase their ability to absorb more imports from the United States and other parts of the world should be done and would be a very salutary thing. So, we were anxious to see them move, not just on the fiscal side, but on the monetary side as well. And we've been very pleased by what has taken place since last fall.

Senator **Sarbanes**. Do you think their expansionary programs are adequate?

Secretary **Baker**. Sir.

Senator **Sarbanes**. Do you think their expansionary programs are adequate?

Secretary **Baker**. I think that the world economy is adjusting, Mr. Chairman. I think that we are seeing a resolution of the external imbalances that have concerned us for some time. We see a decline in the U.S. trade deficit in volume terms and we also see declines in the German and Japanese trade surpluses in volume terms.

Senator **Sarbanes**. When do you expect to see a decline in money terms?

Secretary **Baker**. Well, we saw a decline in nominal terms as well in November and December of last year, if you're talking about the U.S. trade deficit. But the nominal numbers, Mr. Chairman, fluctuate fairly substantially from month to month. But we are pleased to see the nominal improvement that we saw in November and December.

Senator **Sarbanes**. Mr. Secretary, in your prepared statement, you testify that a further decline in the value of the dollar would be counterproductive and that we will work closely with our trading partners to foster exchange rate stability.

Yesterday, Prime Minister Thatcher, in a statement to Parliament, said the British Government would not intervene to stop the rise of the pound.

Well, first of all, were you informed of that beforehand and second, what effect does this have on the statement of working closely with our partners to foster exchange rate stability?

Secretary **Baker**. The answer is we were not informed beforehand, but that doesn't have, in our opinion, any effect on the statement that we are going to continue to work closely with our trading partners to foster exchange rate stability.

We are quite satisfied that the United Kingdom, as well as all of the other G–7 nations, remain fully committed to the agreement of December 22, which states the conclusions that you've read in phrasing your question.

So we don't see this action by the British Government, Mr. Chairman, in any way as running counter to that agreement or being somehow a repudiation of it. It's a matter involving monetary policy considerations within the United Kingdom and particularly, I think, the relation of sterling to the currencies in European monetary system.

Senator **Sarbanes**. If each of the other major trading countries followed the same policy, the effort to foster exchange rate stability would be dealt a major blow, would it not?

Secretary **Baker**. Well, that's an assumption, though, that's not warranted. They haven't followed such policies, and we have no reason to think that they will. And the G–7 agreement of December 22, contains no secret agreements with respect to interest rates. Countries are free to consider the requirements of domestic monetary policy.

Senator **Sarbanes**. My time has expired. I'll come back in a second round. Congressman Wylie.

Representative **Wylie**. Thank you, Chairman Sarbanes. I want to pick up on a statement that you made, Mr. Secretary, where you said, "The American people are not undertaxed; the Government has overspent."

May I say that I respectfully disagree with the statement of the gentleman from Wisconsin, Senator Proxmire, that we need a tax increase. I want to see if I can't help you get me some support in that view.

The CBO says that over the next 5 fiscal years, Treasury revenue under current law will jump $365 billion. I think that's even under your estimate a little bit, isn't it, Mr. Secretary? Let's assume they're accurate.

Secretary **Baker**. Well, I can't answer that, Congressman Wylie, but I assume so.

Representative **Wylie**. OK. And that indicates that revenues will be the highest in U.S. history in that period of time.

Secretary **Baker**. Right. I just haven't seen that specific——

Representative **Wylie**. All right. We have gotten by fiscal year 1988 supposedly with the so-called summit agreement. And may I say that I appreciate your work on that summit agreement. I think it does look like we can work together in a time of crisis and I think it had a positive psychological effect.

In that agreement, there was a call for, I think, about $11 billion in increased revenues. Is that right?

Secretary **Baker**. Congressman, the number you're using would be the total of all revenues in fiscal 1988, including user fees and IRS compliance measures; $11 billion in fiscal 1988.

Representative **Wylie**. That's $11 billion for fiscal 1988.

Secretary **Baker**. Yes, sir, and $17.3 billion for fiscal 1989, including what was characterized as hard taxes, user fees, and IRS compliance.

Representative **Wylie**. All right. The estimate here, according to CBO, if I read it correctly, and if I'm not reading it correctly, if you know differently, you can correct me, indicates that we will have increased revenues of approximately $55 billion over the previous fiscal year, which is, I think, above the estimate that was taken into account at the summit agreement.

Secretary **Baker**. I believe that's correct, Congressman Wylie.

Let me say this. We had greater revenues last year than we had forecast. We think that was, in part, a consequence of tax reform. In our revenue estimates for 1989 we include what we think will be the effect of tax reform. It may well be that we'll see greater revenues than those estimated because the marginal tax rate will fall to that specified in the Tax Reform Act of 1986.

Representative **Wylie**. I think the point I'm trying to make here is that revenues have already increased. Apparently, according to CBO estimates, more than was anticipated in the summit agreement and more than anybody had anticipated.

Do you feel that this increase in revenue collections will be sufficient to meet the deficit problem that Congress is now facing?

Secretary **Baker**. We certainly do, Congressman Wylie. The point I made in my opening statement is that if the President's budget is passed, the deficit will be reduced to four-tenths of 1 percent of GNP by 1993 and to 2.6 percent by next year.

Frankly, it's my personal opinion that we have been very, very conservative in our estimates of revenues. Last year, we were way too conservative and revenues came in much greater than we anticipated. So, at the very least, we have not overestimated revenues from tax reform. It wouldn't surprise me to see a big revenue gain from tax reform again in calendar 1988, much as we experienced in calendar 1987.

Representative **Wylie**. All right. I'm always the incorrigible optimist. But it seems to me, based on what CBO has projected as far as revenues are concerned and the deficit, that that's an indication right there that we don't need a tax increase.

The other possible scenario, and one which I have advocated, is a freeze across the board at spending levels for fiscal year 1987. That would save somewhere in the neighborhood of $65 billion, according to the figures which they gave us here, which could meet the targets of Gramm-Rudman very handily.

What do you think about a freeze across the board? Now I'm talking about all programs.

Secretary **Baker**. Well, mathematically, a freeze is great, Congressman Wylie, but I worry a little bit about it unless there is some flexibility so that you can make some very, very difficult policy choices.

A total freeze across the board would freeze FAA recruitment. It would freeze law enforcement, drug enforcement, our efforts to catch up in space, and spending to combat AIDS. It would also freeze increases, for instance, for the National Science Foundation, which we've included in the budget to make America more competitive.

So I think that while a freeze has merits, it also has drawbacks. A lack of flexibility is one reason we didn't propose one. We think we can reduce the deficit without being quite that draconian.

But if I might just suggest one thing, and that is that the American people are not undertaxed. Receipts are roughly 19½ percent of gross national product, which is just above the average for the 1960's and 1970's. But the U.S. Government continues to spend in excess of 22 percent of our gross national product. A couple of years ago, it was up in the 24 percent range.

So, it's not a case of not taxing enough; it's a case of continuing to overspend. We need to reduce spending to about 20 percent of gross national product.

Representative **Wylie**. Well, I've suggested the possibility of a freeze across the board. In a questionnaire to my constituents I asked whether they would favor that. It came back overwhelmingly in support of such a move, on the theory that everybody would participate in the deficit reduction problem, which I think is the most serious problem facing the Nation right now. But I'll pursue that at another time.

In your statement, you also mentioned the need for congressional spending restraint.

What do you think about the line-item veto in regard to the balanced budget amendment? Would it help, and why?

Secretary **Baker**. Well, sir, I think I mentioned that it's our view that the budget process is broken. Notwithstanding what the agreement might or might not have been between the legislative and the executive branches, we find ourselves faced with a gridlock in the budget process.

I really believe strongly that if you gave the President of the United States line-item veto authority, you'd put the responsibility on him, and then you could hold him responsible at the polls if you didn't like what he did.

Right now, we don't have any way to extract a lot of really unnecessary spending that is added to must-pass bills, bills that significantly affect the national interest. So, the President is faced with the unpleasant choice of having to swallow those additional spending items or veto a bill that's badly needed. Forty-three State Governors have the line-item veto authority and I don't know why we shouldn't follow the same approach at the national level. Then if the President doesn't perform the way that the American people expect him to, they can toss him out.

It seems to me that this is the only way that we're going to get a handle on spending.

Representative **Wylie**. I happen to agree with you. I've been given a note that my time has expired. Thank you very much.

Senator **Sarbanes**. Congressman Scheuer.

Representative **Scheuer**. Thank you, Mr. Chairman. I, too, Mr. Secretary, wish to congratulate you on your stewardship of the economic life of our country. You've been a firm, steady hand at the helm and considering the ideological predilections and preoccupations of this administration, I think you've done as moderate and thoughtful a job as could have been possible under all of those conditions. And I congratulate you for that and we're all the better off for it.

In your prepared statement, you talk about the increase in employment of 3 million persons. And you talk about the unemployment rate dropping and you mention that the unemployment rate for blacks was down by 1½ percent and for Hispanics was down by more than 2 percent.

Yet, there is a problem there. Unemployment rates for our total country, for the total country, is 6.2 percent, but for blacks, it's 13 percent.

So the unemployment rate for blacks is about twice what it is for the country at large, and it's much more than that for the white population.

Now, this is no criticism of your administration because this has been true historically for the entire time that I've been in Congress; in fact, for much of that time, the black unemployment rate was 2½ times the white rate. So maybe it did improve somewhat over this generation. But the black unemployment rate is greater now then it was in the 1970's and the late 1960's. So we've lost ground.

And it's no secret that we have developed a subgroup in our society composed not entirely, but largely, of blacks and Hispanics who are years behind grade level in reading. We have a 25 percent adult illiteracy rate, or functional illiteracy rate, in our working population that is a plague on our house and an albatross around our neck.

The dropout rate for blacks in school is over 40 percent. For Hispanics, it's over 50 percent. And even those who graduate from school, along with some whites, no question about it, even those who graduate frequently can't read their diplomas. They can read their names and write their names with agonizing difficulty, but they can't read a simple job description. They can't read traffic signs. They can't read a menu. They can't read "poison," spelled in large letters on a big bag of insecticide and they feed it to the hogs or the pigs thinking it's a nutrient.

There's an increasing mismatch between the skills of our central city populations and the jobs that are there in abundance to be filled. Three-quarters of all the jobs in our central cities between now and the year 2000 will require some postsecondary education. It will require literacy plus.

But, yet, we have this profoundly unsettling rate of school failure and adults coming into the working population without job skills that the job market will respect, with little hope for them to acquire independence and self-esteem in our society.

So we're adding to this subgroup every year of people who can't make it, who see what comfortable, middle-class life is on their television screens and who are bound increasingly to lash out in anger and resentment and alienation.

And it's not only a problem of our national productivity and our national competence that will affect the degree to which we can compete in global commerce. It not only affects the constantly growing course of the safety net for low-income people, young people. But it's a poisonous social and political element in our society.

So I ask you to think about that problem of black and Hispanic undereducation, underemployment, unemployment, and a seemingly inability to close the gap in the enjoyment of a middle-class quality of life in our country.

Wouldn't it be a great legacy for this administration to leave the country in the waning 8 or 9 months, to come up with an imaginative program for education remediation, helping our schools do the job for this population group that seemingly has defied our best efforts at bringing them into the educational mainstream, with a job training program that will give them the kind of jobs that the job market requires and for jobs that are greatly available in our central cities, in the fields of communication, in the field of financial services that require some computer capability, but are there and will be there in increasing numbers.

So far, this administration has turned its back on that problem. I would urge you as a matter of the future economic and even more, the social and politicial health of our country, to think about addressing yourselves to this problem in the last 8 or 9 months.

Do you have any ideas how we can close the gap of the structural unemployment and structural undereducation, structural underenjoyment of the quality of life and structural underparticipation in our economic life.

Secretary **Baker**. Well, Congressman Scheuer, first of all, let me say that I couldn't agree with you more that structural unemployment is a problem. It's not just a problem for the inner cities or for the disadvantaged minorities involved. It's a problem for the Nation.

I would disagree with you, however, that the administration has turned its back on the problem. You asked me what we can do to cure it. One thing we could do as a start, at least, would be to pass the President's budget. Let me tell you why. There are very few spending increases in the President's budget because of the budget summit agreement. Furthermore, we're all interested in dealing with the deficit problem by spending restraint.

But, let me tell you where some of the major increases in the President's budget are. First of all, in education, $660 million has been included for discretionary programs that provide crucial aid for the poor, the handicapped, and the educationally disadvantaged.

There's a 12-percent increase over fiscal 1988 to fight drug abuse. One of the problems in the inner cities, as you well know, is the problem of drug abuse.

Representative SCHEUER. Mr. Secretary, you put your finger on a major problem. I serve, and I have served for several decades, on the Select Committee on Narcotics. You spend less than 1 percent of your total narcotics budget on education. We know that law enforcement is not going to make it.

Ever since I've been on that committee since the middle 1960's, the FBNDD, in those days, the Federal Bureau of Narcotics and Dangerous Drugs, and now the Drug Enforcement Administration, have told us that they're catching maybe 10 to 15 percent of the drugs coming into our country.

Secretary BAKER. Sure. That's right.

Representative SCHEUER. Since the memory of man runneth not, they've been telling us they're picking up 10 to 15 percent. That means 85 percent gets in. The figures are no different today.

Secretary BAKER. I'm not arguing that, Congressman. What I'm saying is——

Representative SCHEUER. I strongly feel that we must have a drug education program.

Secretary BAKER. I agree.

Representative SCHEUER. And yet, you're spending less than 1 percent of the Federal education budget on the one thing that cripples and destroys the education prospects of young minority people.

Secretary BAKER. You asked me to take a look at this during the last 8 or 9 months of the administration. I want to tell you that that's part of what we're doing. Some of this increase for drug abuse is going into education.

Representative SCHEUER. Well, we provided $250 million for drug abuse education in the bill that we passed last year and the administration cut it by 60 percent, to $100 million. That's a trivial amount for the greatest problem plaguing these minority kids in our country.

Secretary BAKER. That's true. But my point to you is simply this: we are asking for an increase this year in this area, among others, partially in response to the drug-abuse problem that you've identified.

With regard to jobs, we're asking for an additional $500 million for programs to teach skills to welfare recipients. In addition to that, we're asking for almost a billion dollars—$980 million—for worker readjustment programs. We've included increases for housing and for aid to the homeless.

Let me tell you what I think is the very best thing we could do to confront the problem that you've identified. It's a suggestion we made last year, but it didn't get anywhere. I think we're probably making it again this year. I'm not the point person for the administration on this. One of the problems underlying the high unemployment rate is that a lot of that unemployment is among disadvantaged youth, minority youth, as you know.

Representative SCHEUER. No question about it.

Secretary BAKER. And I don't understand, Congressman, why we cannot get support from your side of the aisle for a youth opportunity differential on the minimum wage.

Representative SCHEUER. Mr. Secretary, would you be willing to sit down with me and Congressman Gus Hawkins, who's chairman of the House Education and Labor Committee, to discuss the whole question of joblessness and education failure and job failure?

Secretary BAKER. Sure. Absolutely. I don't have the leadership, as you know, on those issues in this administration, but, again, I think that the youth opportunity differential would at least get us started in the right direction. It would give these disadvantaged urban youth, minority youth, a chance at a job.

Representative SCHEUER. I'd be glad to take the opportunity to sit down with you and perhaps somebody from the Office of Education——

Secretary BAKER. And Labor.

Representative SCHEUER. And Labor.

Secretary BAKER. Yes, sir.

Representative SCHEUER. I appreciate that very much. Thank you, Mr. Chairman.

Senator SARBANES. Congressman McMillan.

Representative MCMILLAN. Thank you, Mr. Chairman. I'd like to congratulate the other side on their congratulations to the Secretary for a job well done. [Laughter.]

We appreciate the work you do and especially the time you take to come up here and bridge what's often a gap that fails to get bridged between the executive and the legislature, and you do an exceptional job of that.

I want to go back a little bit to I guess the core question which has to do with dealing with what I perceive to be the No. 1 problem, and that is the ongoing budget deficit.

The projections that you've discussed here this morning based largely on OMB's estimates of economic projections indicate a deficit for 1988 of $147 billion, I think you stated, and $130 billion in 1989, which would be pretty close to the Gramm-Rudman deficit reduction target, within a few billion dollars.

And as I understand, that's based on a real growth rate in 1989 of 2.4 percent and then a 3.2 percent real growth rate for 1989. I think that's correct.

Secretary BAKER. That's correct.

Representative MCMILLAN. Beyond that, OMB, I think, over 5 years projects revenue increases of $350 billion, which, presumably, would pick up on the 2.4 percent growth rate in 1989, plus 3.2 percent thereafter. Now, that's an average of $70 billion a year of additional revenue on top of the roughly $1.56 trillion, I think it is, this year.

Secretary BAKER. Excuse me, Congressman McMillan. I think you said our real growth estimate for 1989 was 3.2 percent. It's 3.5 percent.

Representative MCMILLAN. 3.5?

Secretary BAKER. I believe that's right.

Representative MCMILLAN. And then 3.2 thereafter.

Secretary BAKER. That's fourth quarter over fourth quarter.

Year over year growth is forecasted to be 3.1 percent. Fourth quarter to fourth quarter is expected to be 3.5 percent for 1989.

Representative **McMillan**. OK; good; thank you. But the revenue estimate at 5 years is an increase of $350 billion. Now, it varies from year to year, but on the average, $70 billion a year.

CBO, interestingly, has a 5-year projection of revenue increases of $365 billion. Now I don't know what the differentials are. They're probably projecting a lower real growth rate. Yet, they're projecting a higher level of revenue, $365 billion, which is a growth in revenue of approximately 6 percent per year in rough figures.

Now, we get back to the question of what have we got to do to meet our deficit reduction target, hopefully by achieving balance? And the way I would look at it would be by the year 1991 or in the fiscal year 1991, which is 1989, 1990 and 1991, or 3 more budget years out in front of us.

On the question of the issue of a so-called freeze, which does have the value of being fairly clearly understood by the general public and something that they can buy into, if we interpret that as a programmatic freeze, that is, the programs stay in place, they increase to the extent additional disciplines come into the program and we budget for that, plus we make COLA adjustments in virtually all of them. The way we estimate that, it would come to an increase in spending of about $30 billion a year, more or less, that you could maintain current programs, adding new participants as they qualify, make cost-of-living adjustments, and still only increase spending by $30 billion a year.

If you accept CBO's revenue estimates, of increases in revenue of $73 billion a year, then, presumably, with no tax increase, you could have on that approach $43 billion for deficit reduction, which, over 3 to 4 years, would enable you to virtually balance that budget.

The only kicker in that would be if you have a downturn, you then have a shortfall and you're either going to have to postpone it or, some would argue, you ought to make some revenue compromise to, let's say, overcompensate for that eventuality and hopefully, not as much to bring it about, but—does that strike you as a reasonable approach to the kind of spending restraint that you think could enable us to achieve a balanced budget by 1992?

Secretary **Baker**. Well, Congressman McMillan, a freeze was examined and considered in the budget summit negotiations. To be very honest with you, I don't think the political system is prepared to accept such a proposal right now. The only way that that could happen, in my opinion, would be if the leadership of both of the political parties in this country agreed that it was going to happen and gave each other, if you will, the political cover necessary to make it happen. That circumstance did not exist in the budget summit negotiations, although the possibility was examined.

On a purely mathematical or purely economic basis, putting aside for the moment political considerations, which you and I know we can't do within this environment, a freeze may achieve the deficit reduction that you've suggested. But, before it is a realistic proposal, before it's one that anybody would accept, I think you have to ask yourself: how do we get the political support to make it happen? I frankly don't think we're at that point yet.

Representative **McMillan**. Well, I guess I would have to say to that, not necessarily to you, but in general, that if not now, when? I think we're at an ideal point in time to deal with this issue.

Secretary **Baker**. I very respectfully disagree, Congressman, for the reason that in an election year, not just an election year, but a presidential election year, it is very difficult to do something like that. Furthermore, all you have to do is pass the President's budget and the deficit declines to only 0.4 percent of GNP by fiscal year 1993.

But if you should conclude that a freeze is necessary, I think getting the political support for it is more easily accomplished outside of an election year than within one. This advice comes from 4½ weeks or so of slugging it out in those budget summit negotiations, where this proposal was among the proposals we looked at. I'm just saying that——

Representative **McMillan**. I realize what you're saying is eminently practical and probably very true. But I still think that those of us who—and I think most of us care about that issue, but feel that we have the political latitude to deal with it, and need to begin to try to build the momentum so that when we're back up here this time next year, that perhaps we can address that.

Which means that I think we've got to address it in the current context, even if we don't win.

Secretary **Baker**. Well, I think a new administration, Congressman McMillan, has opportunities that are not presented to administrations that have been around for a while.

I think we were able, for instance, to accomplish some rather significant, substantial and unique fiscal policy changes in the first 100-plus days of the Reagan administration, the most sweeping fiscal policy changes that this country has seen in 40 years. I happen to think those changes were good. I think they were the right thing to do. I think that's why we're in our 64th straight month of sustained economic growth without inflation.

This is not the time, if I may say so, at least in my opinion, to address something that is as politically controversial as an across-the-board freeze would be.

Representative **Wylie**. Would the gentleman yield?

What you're saying, Mr. Secretary, is it's really a political problem and we are in the height of the political season.

Secretary **Baker**. That is correct. It seems to me, Congressman Wylie, to make things fly in this environment, you've got to have not only the right policy, but you've got to make sure you have the political support behind that policy or it isn't going to happpen.

Representative **Wylie**. Thank you.

Representative **McMillan**. Thank you, Mr. Chairman.

Senator **Sarbanes**. Mr. Secretary, let me just interject at that point.

As I understood your testimony earlier, you weren't making the argument solely on political grounds. I thought you made a priorities argument with respect to how you deal with spending. I thought you took the position that simply freezing, without making relative judgments as between different programs and the problem that we're facing, was not the way to address the question.

Secretary **Baker**. You're quite right, Mr. Chairman. I think, as I said in response to an earlier question, that you need flexibility in any freeze approach because there are some functions of government for which you really need to ask: do we really want to freeze these for a year, or should we take a look at them?

Senator **Sarbanes**. So there's a substantive dimension and not just a political dimension to your response.

Secretary **Baker**. Absolutely. And I don't mean to suggest for 1 minute that my opposition is just political. I think I said in answer to Congressman McMillan's question that before you go that route, you'd better make sure you have the political support necessary to make it happen.

But I also think that an across-the-board freeze that is rigid and contains absolutely no flexibility can be criticized as such.

I think the concept of freezing spending is a valid concept that ought to be examined. But, it ought not to be absolute, rigid, and across-the-board, in my personal opinion. Furthermore, you'd better make sure before you attempt it that you've got the political wherewithal to make it happen.

Senator **Sarbanes**. All right.

Secretary **Baker**. Having said all of that, I want to say one more time for the benefit of the people here on my left that I am up here supporting the President's budget, not signing on to any other approach. [Laughter.]

Senator **Sarbanes**. Senator Proxmire.

Senator **Proxmire**. Mr. Secretary, in response to my opening statement, you said that any argument that the President had underestimated the deficit is the responsibility of Congress, that he sent a budget up here that if we'd followed the budget, it would have come out fine.

In 1982, the President estimated the deficit at $45 billion. It was $111 billion. In 1983, $91.5 billion. It was $195 billion, far more than twice as much. And it goes on year after year being underestimated.

Secretary **Baker**. What was our estimate in 1987, Senator?

Senator **Proxmire**. In 1987?

Secretary **Baker**. Yes.

Senator **Proxmire**. $144 billion. And it actually was $150 billion.

Secretary **Baker**. Just made it under the wire. Well, OK.

Senator **Proxmire**. You still underestimated the deficit.

Now, I've sat down and I've asked you to have some of your fine staff work this out. If we passed every Reagan budget——

Secretary **Baker**. Senator, let me, just for the record, I'm told that our budget estimate when we sent the budget up in 1987 was $173 billion. What you're looking at and pointing to may be the mid-session review number, indicating that we came in $6 billion above our estimate.

Senator **Proxmire**. That was the first one I got.

Secretary **Baker**. $173 billion and we came in at $150 billion.

Senator **Proxmire**. Well, let me throw another one at you. [Laughter.]

If we passed every Reagan budget, if we voted for every Reagan recommendation for supplemental and for rescission, we would have had a $20 billion bigger national debt today.

Now I challenge you to have your experts take a look at that and you'll find that that's the case, that Congress, actually reduced the recommendations of the President by the action that we took up here on both the revenue and the spending side.

Secretary **Baker**. Well, I'd be happy to take a look at that and respond to you promptly.

Senator **Sarbanes**. Well, Mr. Secretary, I think this is an important point because I think your response left the impression that because the Congress didn't simply accept the President's budgets, we ended up contributing to the problem and contributing to a larger deficit.

In fact, the Congress, in its actions on the budget, actually did somewhat better than would have happened under the President's budgets, a different set of priorities, but in the total spending revenue picture and the resulting deficit, it represented a better performance.

I think your response to Senator Proxmire, we look forward to receiving it from you.

Secretary **Baker**. We'll be glad to take a look at that and analyze it and get it back up to you.

I do suggest, Mr. Chairman, with all due respect, that Congress is part of the problem.

Senator **Proxmire**. Well, sure we're part of the problem.

Secretary **Baker**. This is a government of shared power. The President can't spend a dime.

Senator **Proxmire**. Well, we're part of the problem, but the President indicates that we're the only problem.

Now let me say this, that you're talking—and this is a self-serving statement, so I'm going to be delighted to make it. [Laughter.]

The National Taxpayers Union keeps track of every Member of Congress' position on spending, without exception. A lot of people don't like them, but they do that.

For the last 15 years, I've had the best record in Congress in holding down spending. Now, I also am a cosponsor of the line-item veto. I'm also a cosponsor of the balanced budget.

And I still say that a responsible position, in spite of the fact that I've done everything I can to hold down spending, the responsible position is to say that we have to increase taxes.

Secretary **Baker**. We wouldn't have to, Senator, if we had 49 or 50 other Senators who would join you and 218 House Members who would sign up right now.

Senator **Proxmire**. Well, I think the arithmetic indicates we'd need it, anyway. But let me go ahead.

You said that for the past 64 successive months, we've had an expansion and that's the best we've ever had in peacetime, and that's correct. But it's correct because we're living beyond our means. Why do we always have expansions in wartime? Because we spend a lot more than we tax. That was true in World War I, World War II. It's been true in every war we've ever fought.

Now we have a peacetime situation where we're running huge deficit on top of huge deficit, back to back to back. So of course we have expansion. Just like a good-time Charlie with a credit card saying to his family, don't worry, we're living beautifully.

Of course you're living beautifully if you're living beyond your means and you're building up an enormous debt that you're going to impose on your grandchildren the burden of paying interest on that debt.

Secretary **Baker**. Senator, the public debt of the United States as a percentage of GNP is going to decline after 1988 if you pass the President's budget. It's going to decline from 43 percent down to about 37 percent in 1993.

Senator **Proxmire**. Well, I took a look at that and I noticed that all the declines are predicted. Furthermore, what we overlook here is the most vulnerable part of our economic debt, and that's the household debt and the business debt, which has also increased and increased very rapidly on any kind of a basis.

Business debt in 1955 was $2.85 for every dollar of earnings. Do you know what it is today? It is $9.00; $9.00. Household debt is rising. It's $2.8 trillion, far more than the Federal debt. And of course it's rising at a time when savings are falling.

It seems to me that when you put all that together, and recognize that, sure, in World War II, we had a bigger Federal debt. But in World War II, we had practically no private debt. You couldn't buy a car. You couldn't buy a house.

Secretary **Baker**. We had a bigger Federal debt——

Senator **Proxmire**. We had a tremendous savings rate.

Secretary **Baker**. We had a bigger Federal debt relative to GNP as recently as the Kennedy-Johnson administration.

Senator **Proxmire**. Well, we were fighting a war then, the Vietnam war. Now we're doing it in peacetime.

But when you put the Federal debt together with the household and business debt, then you see why this economy is really in difficulty.

Secretary **Baker**. I don't agree that the economy is in difficulty. It seems to me when you add 15 million new jobs, when you have an inflation rate under 4 percent for 4 years in a row——

Senator **Proxmire**. That's the old good-time-Charlie attitude. If you live beyond your means, you can look awfully good.

Now let me follow up on a question that the chairman asked. He asked about whether or not you have any contingency plans in the event of a recession.

I was astonished that you said that you didn't have any. Now, it's nice to be optimistic, but the fact is that one price you pay for a free economy is you have recessions. We've had them throughout the years. We haven't had a recession lately because, as I say, we've been living beyond our means. But you can never have a recession under those circumstances.

Secretary **Baker**. What I said was that I don't think that we ought to hypothesize and speculate about recessions because we don't see one in the near future.

Senator **Proxmire**. Are you telling me that if we follow the right policies, we'll never have another recession?

Secretary **Baker**. What I'm saying to you is if we'd adopted contingency plans back in 1983, when a lot of people started talking about a recession, we'd have a bunch of unused contingency plans sitting on the shelf that would have been there for 4 years or 5 years.

Senator **Proxmire**. Well, that would be great. I'd like to see that. It would be nice to have them on the shelf.

Secretary **Baker**. I think you ought to address the situation at the appropriate time under the circumstances that exist at that time. You can't sit here today and say what you might do if the wheels come off 2 years from now.

Senator **Proxmire**. That's the best kind of insurance. As Congressman Scheuer has been whispering to me, that's what we do in wartime. It would do in peacetime, too, to be prepared for any military contingency.

Secretary **Baker**. I would disagree with that. I don't think it's a case of not being able to act and act expeditiously and quickly. That can be done.

I'm sorry, but I just simply disagree. I think that we should retain the flexibility to address the situation as and when it occurs. We will be quite competent and able to do that, in my opinion.

Whoever is sitting in this chair will be able to do so, as will whoever's sitting in that chair.

Senator **Proxmire**. Now let me ask you a question that concerns this committee very deeply. The chairman pursued this. I'd like to follow up on his pursuit of it. And that is your influence over monetary policy.

Michael Darby, who is your Assistant Secretary, and I understand you're his boss, wrote every member of the Open Market Committee, something that I've never seen in the 30 years I've been here and the 30 years that I've been on the Banking Committee, wrote every member of the Open Market Committee a couple of weeks before the Open Market Committee met, knowing that they would meet, and made the strongest case he could for an expansive monetary policy.

Now if that isn't overt, direct interference with the independence of the Federal Reserve Board, I don't know what is. No other Treasury Department has ever done that.

So my question to you is what kind of disciplinary action have you taken with regard to Mr. Darby?

Secretary **Baker**. Absolutely none, Senator. Mr. Darby's letter was not cleared by me. Mr. Darby is an academic and he was setting forth some rather academic ideas and arguments, I think, in that letter.

But let me tell you my view of the way the relationship ought to work between the Federal Reserve and the Treasury.

Senator **Sarbanes**. Mr. Secretary, could I interject? I'm not sure I heard you. Did you say the Darby letter was sent without your knowledge?

Secretary **Baker**. Yes, sir. That's right.

Senator **Proxmire**. And you took no disciplinary action? You didn't even reprimand him for that? Shouldn't you have known about it? It comes from the Treasury Department.

Secretary **Baker**. Well, I don't call that disciplinary action.

Senator **Proxmire**. Every single member of the Federal Reserve Board now has been appointed by this President, the first administration in 50 years that has seen that.

Secretary **Baker**. Right. That's correct.

Senator **Proxmire**. We have a situation of imbalance that's built in. That's why you should be, it seems to me, exceedingly careful.

Secretary **Baker**. Senator, I did convey to Assistant Secretary Darby that letters like that should not be sent just before FMOC meetings. But, I don't consider that to be disciplinary action.

Let me say this, however, about what my philosophy has been in this job. I think that the Treasury and the Federal Reserve must work very, very closely together. I have worked extremely close with two chairmen during the 3 years that I've been Secretary of the Treasury and I have had, I'm happy to say, a very good relationship with both.

We consult frequently. I consulted with Chairman Volcker frequently. I consult frequently with Chairman Greenspan. We consult about the debt problem. We consult about the matter of exchange rates. We consult about fiscal policy and we consult about monetary policy. And we should. That is quite appropriate.

You have never heard me criticize the Federal Reserve because my view on that score is, as I stated publicly when I took this job, no Fed-bashing from the Treasury, provided everybody understands that it's a two-way street. If the Fed decides that they're going to bash administration policy on the fiscal side, then its quite appropriate, in my opinion, for the administration to let the public know what it thinks of Fed policy, if indeed it's critical or if indeed it supports it.

What I'm saying, Senator, is I quite agree with you that the Federal Reserve ought to be independent. But I don't think that means that they should be totally sheltered from outside advice or, if need be, criticism. The administration is accountable for the general performance of the economy. It's my view that the administration has the right and the responsibility to advise the Federal Reserve on all elements of economic policy, just as we welcome their advice to us on all elements of economic policy.

Since I've been here, though, the two-way street approach has worked, and there hasn't been any Fed-bashing by the Treasury Department, and there hasn't been any administration-bashing by the Fed. And I'm happy to think that that is also going to remain the case for the rest of my term.

My view, Senator Proxmire, is simply this, the Federal Reserve is independent and it ought to remain independent, but it is independent within this Government and it is not independent of this Government.

Senator **Proxmire**. My time is up, Mr. Chairman.

Senator **Sarbanes**. Congresswoman Snowe.

Representative **Snowe**. Thank you, Mr. Chairman. Mr. Secretary, I would like to talk today about the Canadian free trade agreement.

I understand that you played a role in the dispute panel mechanism and, as you know, I represent a district that is part of the border State and we have had some serious and specific problems over the years with Canada and its subsidies that are given to its industries, not only at the Federal level, but also at the Provincial level.

These are issues that I have raised with the administration constantly since my first year in Congress in 1979, to no avail. And I am particularly disturbed as to what is developing with this trade agreement as to how it affects a lot of my key industries in the State of Maine.

Now, I know you said recently in I guess it was a publication, said that there will be ample opportunities for unreformed Scrooges to say humbug——

Secretary **Baker**. I didn't hear you. I'm sorry, Congresswoman.

Representative **Snowe**. There will be ample opportunities for unreformed Scrooges to say humbug to the agreement. I hope they will be persuaded by logic and vision.

Well, I'm trying to be visionary and logical about this issue. But one of the major concerns that I have, and others have here in the Congress, is the fact that the agreement fails to address the subsidy issue.

As you know, the agricultural subsidies were deferred to the GATT. Well, that's where many of our problems began in the Tokyo Round back in 1978 or 1977. I just want to know from you what considerations are you going to give to the concerns that we have with this agreement in that respect?

I have three major industries in my State that will be uniquely affected—fishing, potato, and lumber—all of which have been severely impacted by subsidized industries in Canada, both at the Federal and Provincial level. And so this agreement fails to address that.

Frankly, I think that the Canadians got a great deal. We get a dispute panel mechanism that I know that you were involved in drafting, that essentially neutralizes our antidumping and countervailing duties over time. We even have a statement in the agreement that commits the United States to examining our practices. Yet, at the same time, we have no reciprocal commitment to examining their practices with respect to subsidies and so on.

Secretary **Baker**. First of all, let me say that I don't think the dispute settlement mechanism does neutralize your remedies. You would have the same remedies under this agreement to retaliate against unfair trade practices involving subsidies as you do today. The sole change is that instead of appealing to a Federal court, you appeal to a binational commission which has to apply the law of the United States and all the precedent that the U.S. cases have established, and has to apply our countervailing and antidumping law, et cetera.

Let me say that we worked hard to have some subsidy discipline included in this agreement. We wanted to have a reciprocal agreement that we'd abandon some subsidization practices in this country if they'd abandon some subsidization practices in Canada.

We never could accomplish this. We could never reach agreement because we could never agree on which subsidies they should eliminate or reduce and which we should eliminate and reduce.

So, we concluded that we would simply leave the countervailing and antidumping laws of each country as they are and retain the remedies that we have today.

The agreement calls for both countries to continue to negotiate over the next 5 years to see if we can agree to a discipline for abandoning subsidies. And of course, if the agreement is implemented by Parliament and the Congress, we will do that.

It would have been our preference to negotiate an agreement that would have involved the elimination of subsidies across the board in both Canada and the United States. We couldn't achieve this.

However, we think it treats us as fairly as them. If the Government of Canada finds subsidized U.S. exports are injuring Canadian producers, the binational commission could review that decision by applying the countervailing duty law of Canada. On the other hand, if the U.S. Government finds subsidized Canadian exports are injuring U.S. producers, the binational commission could review that decision by applying the countervailing duty law of the United States. Let's not forget that we have plenty of subsidies.

I would hope that this agreement, when it is considered by the Congress, could be considered on its national basis, not on a State or district basis.

This is going to be very good for the United States. It's also going to be good for Canada. It will create a free trade agreement between the two largest trading partners in the world, $137 billion of two-way trade. It will help the United States, quite frankly, in the negotiation of multilateral agreements in the Uruguay Round and elsewhere.

But apropos of the specific point that you're concerned about, specific industries in your district and State, we have agreed with the Congress that we will work very closely with the relevant committees in the House and the Senate in drafting the specific legislation. We're going to make every effort to address the kinds of problems that you're raising.

Representative SNOWE. Well, I would hope so because it is a serious concern. I know what you're saying. You're saying that we should look at the broad issues involved here. I did that on tax reform. I looked at the broad issues. I voted for the bottom line.

Now try to explain to everybody why their taxes are going up.

That's the issue here in this Canadian agreement. It's easy to dismiss casually the industries that are affected. Clayton Yeutter made the same comments before the Ways and Means Committee recently—it's wrong to evaluate this agreement on the basis of a State or a particular industry.

Well, I don't know what other basis on which to evaluate it. It's very hard to explain to basic industries in Maine that have constantly been harping on this problem for years and we have not met with any success during the course of this administration.

And now we're faced with an agreement that might make it a fait accompli, it might just really solidify the problems that already exist.

I have no hope that the GATT round will address these subsidy problems because we have not successfully addressed them in the past. I don't think we deal with them realistically. We're willing to ignore them. It's easier to ignore the problem than to address the problem with other allies, with our countries and our trading partners.

That's part of the problem, why we have such a large trade deficit, because we're not dealing with a level playing field.

I'm concerned about the future of these industries. It's not a question of protectionism. If that's the case, then, we might as well wipe off of the books all of our existing trade statutes and procedures, which, the fact is, haven't worked very well up to this point in any event.

So I'm very concerned and I would like to know exactly how you will work with the Congress on implementing legislation. Will you work to clarify some of these problems that do exist for industries?

Secretary BAKER. We have told Senator Bentsen and Chairman Rostenkowski that we would be pleased to see language that would confront the specific problems that concern you.

And we're going to go through, if you want to call it that, a mockup markup on this legislation. Even though we could do so, we're not just going to write a bill and say, here's our agreement with Canada. Now, Congress, you vote it up or down. We're not going to do that.

At the same time, legislation that changes the agreement must be generally consistent with what was negotiated, or we will have to find some way to compensate Canada. Furthermore, if they want to make changes, they'd have to find some way to compensate us.

Representative SNOWE. Well, is it my understanding, then, once the implementing legislation is drafted, is it something that you hope the administration will agree to with the congressional committees that are responsible for drafting that, implementing legislation and then the President will submit it to Congress?

How will that work? What happens if there are differences in that implementing legislation?

Secretary BAKER. Yes, that's the way it is to work.

Representative SNOWE. That's the way you hope it works.

Secretary BAKER. That's the way it will work. Of course, we're going to come to some crossroads. Some people are going to want some things that protect an interest in their State or district on which we will not be able to agree because it would be inconsistent with the agreement that was negotiated.

Your recourse in that event, I suppose, is to vote against the agreement. But we would hope that we could work some of these things out so that we get the largest possible majority in support of it because we think that, fundamentally, this is going to be very good for the United States. It's going to be good for Canada. And it's going to be good for North America.

You are not giving up, if I may say so, your potato industry, your fishing industry. You're not giving up any of your countervailing rights. You're not giving up any of your antidumping rights. If you lose, you are agreeing that the dispute will go to a binational panel composed of Americans and Canadians who will decide the dispute on appeal with reference to U.S. law, U.S. precedent, U.S. court decisions.

Representative SNOWE. Well, yes, except for the fact that the subsidies which are no longer being addressed essentially by this agreement is an indication of the difficulty this issue is overall.

I think we're not going to address this issue substantively in the GATT round. That's my opinion. And that's why we failed to address this issue in negotiating this agreement with Canada, because if we can't agree to addressing this issue in that forum, I doubt we're going to be able to address it in the larger forum where we have failed to do that in the past, not only with Canada, but with respect to other countries.

We just have not been tough on the subsidies issue. And we're dealing with two-pronged problem in Canada, at the Federal level, as well as the Provincial level.

Secretary **Baker**. We've been——

Representative **Snowe**. And there's a list which I have given all of those subsidies to this administration, to the Special Trade Representative, to no avail.

So here we are dealing with the problem and what may become a very permanent problem.

Secretary **Baker**. I was going to say, Congresswoman Snowe, that I believe your complaint that we have not been tough enough in enforcing the unfair trade laws of the United States is valid regarding the first 4 years of this administration.

Over the course of the last 2 to 3 years, however, we have been very aggressive in enforcing the unfair trade laws. Although we're not particularly proud of it, this President has granted more import relief than any President in history. This President is the first President in the history of the Republic who has self-initiated 301 cases against our trading partners, initiating five or six with some fairly beneficial results.

Maybe we haven't self-initiated cases in the areas in which you're interested. But I really do believe that we have become a lot more aggressive in enforcing the unfair trade laws of the United States over the course of the past couple of years, as the size of the trade deficit has begun to impress us and everybody else.

Representative **Snowe**. OK. Thank you.

Senator **Sarbanes**. I'd say to the members, we'll take a somewhat shortened second round with the Secretary.

Mr. Secretary, the economic summit is going to be in Toronto in June, which is not very far away. What do you expect to be on the agenda of that summit?

Secretary **Baker**. Well, Mr. Chairman, we've just begun discussions with the other countries, including the host country, Canada.

In terms of the economic issues, I suspect they won't vary a great deal from what we've discussed in past economic summits. I would think that the process of international economic policy coordination, our indicators process, will be the subject of discussion.

I think, clearly, that trade will play a large role in the summit discussions, especially the importance of resisting protectionism. I think there will be discussions of the Canadian-U.S. free trade agreement simply because the summit will be held in Canada.

I think those will probably be the primary economic issues, but it's really a little bit premature to second guess the agenda since we really haven't had discussions with the other countries yet.

Senator **Sarbanes**. Mr. Secretary, let me suggest something to you and let me do it by putting a couple of questions to you and then drawing some conclusions.

First of all, do you think that other countries have assumed responsibilities for world economic growth, or the appropriate economic responsibilities in the international sphere, commensurate with the relative strength of their economies? Or is the United States continuing to operate from the premise that has prevailed since the postwar period, in effect carrying a disproportionate share of the responsibility given what's happened to the relative strength of the economies of the major industrial countries?

Secretary **Baker**. I would have to answer that generally in the affirmative, Mr. Chairman, particularly over the course of the past few years where we've made extra efforts, if you will, to coordinate our macroeconomic policies. We meet now, at least the Group of Seven does, more frequently and I think more extensively than we used to meet as a Group of Five. We still meet as a Group of Five as well.

I think that the major industrial countries of the world are taking steps to resolve the imbalances that exist, taking steps so that the burden is shared according to economic position. We are encouraging some of the newly industrialized countries to do the same, countries whose growth has been very dramatic and very swift and very extensive and who now occupy a significant role in the international economic arena. We're also encouraging them to recognize their responsibility and to carry their share of the burden.

Senator **Sarbanes**. When you give that response, I take it you're in effect saying that within the economic dimension, you think these countries have assumed a commensurate responsibility.

I don't agree with that. I don't think that we're reached that point yet, and I think the United States is continuing to carry a disproportionate share of the responsibility that stems from operating under old premises.

But let me press the question——

Secretary **Baker**. This is just within the economic sphere. You're not talking about defense responsibilities?

Senator **Sarbanes**. That's the next issue I'm going to press upon you. We are carrying a very heavy security burden in comparison with a number of these countries. It seems to me not unreasonable for the United States to say that if we are going to do that—and there are good reasons why in some instances we're carrying that burden rather than having some other particular country carry it—some evaluation of an appropriate assumption of economic responsibility should be factored in.

Secretary **Baker**. First of all, let me say that on the purely economic side, I would answer your question yes, considering the fact that we are the world's largest economy, twice as big as Japan and much bigger than the European and the Canadian economies.

I think the question of burden sharing is an appropriate issue to address, Mr. Chairman. But, the fundamental security question is: Are we doing what we are doing for other countries or because it is in the national security interest of the United States?

Senator **Sarbanes**. Well, perhaps both.

Secretary **Baker**. I think it's largely the latter, or at least that's the administration's view. You mentioned that there are good reasons why we might not want some of our major trading partners to increase their defense establishment, thinking particularly of Japan and its constitutional limits on defense spending.

My answer to you on this issue would be that it is one that should be addressed. But there are strong arguments for the proposition that what we are doing is in the national security interest of the United States.

When you address the issue of burden sharing, I think you need to give consideration to more than just budgetary expenditures. You need to give consideration to the fact that training exercises take place on other countries' turf, not ours, that some countries don't charge anything for the real estate that we occupy, et cetera. It is a very, very complex and difficult issue. But it is one that is quite appropriate to address, in my opinion.

Senator **Sarbanes**. I don't disagree with you on its complexity. Some countries have conscription and provide manpower at a lower cost than a country which does not and pays in order to acquire it through a voluntary system, as we do.

Secretary **Baker**. True.

Senator **Sarbanes**. But even factoring all those things in, we're nevertheless left with the fact that we put about 7 percent of GNP into defense and Japan puts 1 percent.

Secretary **Baker**. True.

Senator **Sarbanes**. We're providing a security umbrella. We may have good reasons not to want to see Japan move in the direction of rearming. But, on the other hand, it seems to me that there's a strong case to be made for their assuming larger economic responsibilities, since we're now engaged in a very intense competitive situation.

If we only put 1 percent of GNP into defense, we wouldn't have a deficit. We wouldn't have a lot of these other problems as well.

Secretary **Baker**. Mr. Chairman, I agree with you that the issue is one, as I indicated in my initial response, that needs to be addressed. It is interesting to note that the Japanese have contributed to the cost of maintaining a fleet in the Persian Gulf. The issue is being discussed. I guess your first question was: Is it going to be on the agenda at the economic summit in June? I can't answer that for you. I'm quite sure it was discussed at the NATO summit.

Senator **Sarbanes**. I think we've got to start moving it into the economic summits because I think it's a fundamental dimension that must be addressed. The security posture of the United States is directly related to a strong economic posture. If a gap grows between our security commitment and the underlying relative strength of our economy to address it, I think we're facing a serious problem.

Congressman Scheuer asked me to yield to him just briefly.

Representative **Scheuer**. Yes. On this point, Mr. Secretary, in response to the question of burden sharing, you mentioned that it's primarily a security issue. Maybe we could look at it in broader terms. Maybe there's some way that the Japanese could engage in burden sharing with us on nonsecurity issues.

For example, Third World debt. It's a tremendous problem. The Japanese are awash in capital. Isn't there a formula that could be worked out whereby the Japanese would make a major contribution to solving the problem of Third World debt?

Loans, grants, investments in the Third World, economic development aid, aid in family planning, which they are very expert at. They really filled our shoes in the last few years since we seem to be in a Catch-22 with our incredible hangup on our foreign aid for family planning.

They could take our place in meeting the needs of the Third World, not only for capital, for some kind of a workout of their Third World debt situation, but also for all kinds of economic and social development. Science and technology exchange, as I said, family planning services.

Isn't this a way to get around the hangup, the very real problem of their 1 percent limitation in their constitution or the proscription that we wrote into their constitution against their rearming to any significant extent. Doesn't this provide a rational way for them to pick up the burden in a very constructive and useful field?

Secretary **Baker**. Indeed, it does, Congressman Scheuer. But let me suggest that the Japanese are moving in that direction. We have had discussions with them. They've made $20 billion available for multilateral financial assistance and aid. Last year, when Prime Minister Nakasone came to visit President Reagan, we announced that. It may have gotten lost in the coverage, but the Japanese are doing this.

Now, I think that it's important that they do so commensurate with their rise within the international economy. But they should not, and we should not encourage them to, supplant the United States. We are twice as large as they are as an economy. We continue to lead in international economic matters around the world. People look to us for leadership. We shouldn't somehow suggest that we should abdicate our international economic policy leadership because we have a period during which we are running trade deficits.

Nonetheless, the Japanese and other surplus nations are picking up somewhat of a greater percentage of the load in some of the international financial institutions.

Senator **Sarbanes**. I don't think the contradiction you pose necessarily follows. It's quite possible for the United States to continue to exercise its international economic leadership and for these other countries to assume a greater range of responsibility reflecting the growth and the strength of their economies.

Secretary **Baker**. I agree with that. That's why I began my answer by saying that I agree with Congressman Scheuer. But then as he continued, he said that our allies should take this burden off of our shoulders.

I just want to make it clear that while I think they can increase their participation and their contribution, the leadership will remain ours and should remain ours. We should not seek to avoid that because, again, we are twice as large as any other economy in the world, and the world continues to look to us for international economic policy leadership.

Senator **Sarbanes**. Congressman Wylie.

Representative **Wylie**. Thank you. I had a question on Third World debt, and I'll just follow up on Congressman Scheuer there.

We're going to get back into the trade bill very soon, I hear, and title III of that bill has a secondary market proposal in it for Third World debt, which I oppose.

But I would ask, what is the status of the Baker plan? Now I understand the Baker plan calls for more private sector participation as far as Third World debt is concerned, although I'm sure you will take into account the possibility that the Japanese could lend more extensively than they now are in the solution of the so-called Third World debt problem.

Secretary **Baker**. Congressman Wylie, it is the view strongly held of this administration, the Federal Reserve, the World Bank, the International Monetary Fund that the only viable solution to the Third World debt problem is the market-oriented, voluntary approach which we suggested in Seoul, Korea, in September 1985. This is the only solution to the Third World debt problem without placing it on the backs of taxpayers in the creditor countries.

If you're going to put it on the backs of taxpayers in the creditor countries, anybody can come up with a solution, I think. You can say, fine, we'll have a Marshall plan to solve the Third World debt problems. We don't think that should be done. We think that would be a bank bailout. We don't think the American people would support it. We don't think we ought to ask them to support it.

Brazil is the largest Latin American debtor nation. About a year ago they declared and carried out a moratorium against paying any interest on their debt. Recently, they lifted that moratorium and reached an agreement with their bank creditors for around $6 to $6½ billion of new financing. In lifting the moratorium, the Government of Brazil said that it had been a mistake, that it had been counterproductive and was not the route to take.

I think, frankly, that we continue to make progress in solving the Third World debt problem in our voluntary, market-oriented approach. The principles that underlie our debt strategy are every bit as valid today as they were when we announced them, that is, there is no solution to this problem, again, unless you're going to sock the taxpayer, except through growth in the debtor countries. For them to generate this growth, they must adopt free market economic reforms, free market policies such as we follow here in the United States. And if they do that, there should be capital flows to support it.

We're making substantial progress. It's slow and steady progress. It's the only viable route in the opinion of the people that I cited in my opening comments to you. I think that, ultimately, we will be successful if we stay the course. I've said many times, Congressman Wylie, that the Third World debt problem didn't hit us overnight. It took many, many years to evolve and it's going to take us some years to resolve it.

Representative **Wylie**. I agree. There are indications that you are definitely making progress and I commend you for your leadership.

Secretary **Baker**. Many countries are adopting the appropriate kinds of reforms, and their economies are progressing for it.

Representative **Wylie**. I wanted to ask one more question which has been asked of me by constitutents. There has been some talk that OPEC seems to have a hard time holding up the price of oil and that that price they've picked seems to be under some pressure again. So some have recommended an oil import fee, one, to help the United States oil industry, and two, to help with the budget deficit.

On the other hand, there are those who would say that that would tend to have a negative impact on our economic growth and employment. I'm trying to be openminded on the issue, but that question does come up increasingly, I will say, in discussions. What would be your view?

Secretary BAKER. Well, it should come as no surprise to you, nor to anybody else on the panel, to learn that I believe, as a matter of national security, we need to have a viable domestic oil industry. At the same time, Congressman Wylie, I don't think that an oil import fee is appropriate. The President, as you know, has, on a number of occasions, rejected the idea of an oil import fee. He thinks that it's the equivalent of a tax.

Let me give you some other objections, if I might. An oil import fee would require us to re-establish in the Department of Energy a part of that bureaucracy that we were able to eliminate when we decontrolled the price of oil. It would be unfortunate if we had to re-establish that bureaucracy.

It's unlikely that an oil import fee would not contain an exception for home heating oil in the colder parts of the United States.

Furthermore, Canada and Mexico, among others, would most likely apply inordinate pressure for exceptions. Our trading partners would have substantial problems with an oil import fee.

If you want to help the domestic oil industry, it seems to me that there are better ways to do it than with an oil import fee.

Representative WYLIE. Well, I think it's interesting to note that even though you're from Texas, you're not for an oil import fee.

Secretary BAKER. I didn't say I wasn't for helping the domestic industry; I said I'm not for an oil import fee. [Laughter.]

Representative WYLIE. Thank you, Mr. Secretary. Thank you, Mr. Chairman.

Senator SARBANES. Congressman Scheuer.

Representative SCHEUER. Thank you, Mr. Chairman. Mr. Secretary, you've said some things today that I find encouraging and a degree of openness that I find encouraging. You say you're for a freeze, but not an absolutely rigid freeze, a freeze that maybe will have a little bit of flexibility at the margin.

To me, that's encouraging because as you and I noted, in terms of the job that has to be done in the field of education and the field of job training, in the field of drug addiction education, the freeze shouldn't be absolute.

You also said, and I really applaud this, that there has to be some kind of political cover being provided on some of these really difficult and anxiety-laden questions, and I agree totally with that. The question is where is the initiative and where is the leadership going to come from?

It's frequently said that the White House is America's bully pulpit. Wouldn't it be great if the White House would provide the kind of leadership whereby there would be a consensus between the Democratic Party and the Republican Party, even this year, before next year, whereby the Democrats would give the Republicans some political cover on their wish to make some adjustments in the entitlement programs.

Most Democrats agree privately that that ought to be done. And whereby the Republicans would agree to give Democrats some cover on revenue enhancement, if that's what you wish to call it, and perhaps nonincome tax revenue enhancement, like an increase in the alcohol tax, like increase in the tobacco tax, like increase in the gasoline tax.

European countries regularly tax their people between $1½ and $2 per gallon equivalent. We tax our people 9 cents.

For every increase in the gasoline tax, you add a billion dollars to the Federal Treasury. If we——

Senator **Proxmire**. For every penny.

Representative **Scheuer**. Excuse me. For every penny, yes, thank you, Senator. For every penny increase, you produce a billion dollars for the Federal Treasury.

If we increase the gasoline tax by 50 or 75 cents, as was recommended by a group of economists right before the Joint Economic Committee only a few months ago, we could add $50 or $75 billion a year to the Federal Treasury. A tax on luxuries, on Mercedes Benz and expensive fur coats would yield enormous income. No?

Secretary **Baker**. Not a lot. We took a look at that.

Representative **Scheuer**. Well, several billion dollars. On tobacco, quite a few billion dollars. You're talking about enormmous amounts of revenue there.

Isn't it possible that we could hope that through you efforts, your really thoughtful, moderating, conciliatory efforts working with the White House, we might start to build the kind of consensus that, yes, we're going to have to discuss some tinkering and some adjustments at the margin on the entitlement programs and, yes, we're going to have to discuss some kind of revenue enhancement.

I find it distasteful and objectionable and offensive that both in the Democratic presidential contest and in the Republican presidential contest, those candidates are vying with each other to see how irresponsibly they can take hard pledges not to have any tax increases.

That's a very destructive process. There ought to be some way that we could call a moratorium on that kind of destructive nonsense.

Couldn't some leadership come from the White House in this last 8 or 9 months of their administration to achieve some kind of consensus that we've got to provide exactly the kind of cover that you've discussed on some tinkering with entitlements, on some tinkering with revenue so that at least——

Secretary **Baker**. Congressman Scheuer, let me just say, as I indicated in my response to Congressman McMillan, that I don't think that a freeze is doable in the last 8 months of an administration in a presidential election year. Moreover, that kind of a proposal was considered without agreement for a period of weeks in the budget summit by representatives of the President of the United States, the Speaker of the House, the Majority Leader of the U.S. Senate, and in effect, the leadership of both the political parties. Consequently, I don't think it's realistic to think that you can accomplish this rather large task in the closing months of an administration, particularly in an election year.

I know you're not suggesting that we raise taxes without also restraining spending. If the administration accepted a tax increase, it wouldn't go to deficit reduction, it would go to more spending.

Representative **Scheuer**. I agree with you. There ought to be some tinkering with the entitlement programs. That's your concern. You're concerned with that and we're all concerned with that.

But both sides, it seems to me, need a little bit of—they need a lot of the kind of political cover that you talked about in order to get a sensible, rational discourse both on revenue enhancement and on some reduction of expenditures, particularly in the entitlement programs.

Secretary **Baker**. Congressman Scheuer, I think the approach to take is to pass the President's budget. That will, as I indicated in my statement and in my testimony, put the deficit on a distinctly downward path so that in fiscal 1993 it would be only four-tenths of 1 percent of GNP. And even next year, the U.S. deficit would be significantly lower as a share of GNP than the deficits of most of the other OECD countries.

I don't think the time is ripe for that kind of an approach particularly when you consider that a similar approach was considered and debated, but not accepted, at the budget summit.

Representative **Scheuer**. Thank you, Mr. Secretary. Thank you, Mr. Chairman.

Senator **Sarbanes**. Senator Proxmire.

Senator **Proxmire**. Mr. Secretary, let me indicate why I think this is a dreamy, overoptimistic estimate, for example, on inflation.

You point out in your prepared statement that industrial production rose 5.4 percent during 1987 and, as a result, the capacity utilization rate has risen to 82.2 percent, with a number of industries operating at or above 90 percent of capacity. This is a level when prices usually begin to rise.

In the second place, we have unemployment—we're delighted to see it—we have unemployment falling to very close to that level where it usually triggers the inflationary effect of falling unemployment.

You put those two things together and it seems to me it seems unrealistic to expect that to continue. And as you indicate in your estimates, inflation will be about 4.3 percent, you say, for this year, and 4.1. Then you really go into the dreamboat and you estimate in 1990, it will be at 3.6, 3.2, then 2.7, then 2.2.

I mean, you expect to have a continued situation where we're operating close to the level of capacity, where unemployment is falling, and yet, you have inflation going down. How can you justify that?

Secretary **Baker**. Well, I can testify to it because that is what has happened since those estimates were made 4 months ago.

Senator **Proxmire**. Well, 4 months ago. We're talking about years here. We're talking about the next 6 years.

Secretary **Baker**. The only experience we have since those estimates were made has been the last 4 months. And so far, they're holding up a lot better than yours or, if I may say so, than CBO's.

I can also support our inflation forecasts with the fact that oil prices, one of the most important components of inflation, are falling. We'd assumed significantly higher oil prices in our estimates, and now they're trending downward a lot more rapidly than most people had expected. So it is an eminently reasonable estimate, if I may say so, Senator.

Senator **Proxmire**. Well, now take unit labor costs. In 1986, the United States was the only major industrial country to register a decline in unit labor costs in manufacturing, as you point out, properly. That's something to be perhaps proud of, until we examine it.

Some of that improvement was due to a higher productivity growth in the United States and elsewhere. But a significant part of the improvement was because U.S. workers received smaller wage increases than their counterparts in Europe and Japan, according to the December 1987 Monthly Labor Review.

So if the United States is gaining a competitive advantage over our trading partners by holding down wages, how does that represent an improvement for the United States?

Secretary **Baker**. It's an improvement as far as inflation is concerned. If those wages——

Senator **Proxmire**. Well, if it's an improvement as far as workers are concerned——

Secretary **Baker**. Well, by how much do you want wages to increase faster than the rate of inflation?

Senator **Proxmire**. Well, I'm just arguing that——

Secretary **Baker**. I don't——

Senator **Proxmire** [continuing]. If the wages, real wages, are falling, it's not an improvement for them. That's what's been happening.

Senator **Sarbanes**. They're not increasing as fast, and therefore, the standard of living is being eroded.

Senator **Proxmire**. That's right.

Senator **Sarbanes**. The question you put was, do you want them to increase faster. But if they don't increase at least commensurate with the rate of inflation, you get an eroding standard of living.

Secretary **Baker**. Are you basing the question on the Congressional Research Service's study, suggesting that standards of living have fallen since 1970?

Senator **Sarbanes**. Well, no. We get a lot of studies floating around. There's an important difference when you talk about family earnings as compared to individual earnings because a lot of families have gone from one earner to two earners. You can show increased family earnings. But if you take the average earnings of individuals, you find an erosion has taken place.

Secretary **Baker**. Well, our data indicate, Mr. Chairman, that when you adjust for inflation, real earnings have risen and risen consistently. The real employment cost index is up to 5.6 percent from 1980 to 1987.

Senator **Sarbanes**. Whose real earnings are you talking about?

Secretary **Baker**. And real per capita disposable income is up 12.9 percent over the same period.

Senator **Sarbanes**. When you say real earnings, are you talking about family earnings?

Secretary **Baker**. Well, I'll have to find out what's embraced in the term.

Senator **Proxmire**. Let me give you the figure from the Economic Indicators.

In 1977 dollars, for every month beginning in March 1987, they dropped in March at an annual rate of 1 percent, the next month, 1.9 percent, the next month, 1.1 percent, the next month, 1.0 percent, then 0.9 percent, 0.9 percent, 1.8 percent, 0.9 percent, 1.3 percent, 1.2.

They've dropped in every single month without exception. In January, they dropped at 0.9 percent.

Secretary **Baker**. The real earnings series I cited, was compensation per hour for workers.

Senator **Proxmire**. This is average weekly earnings. Of course, if they don't work enough hours, their income goes down and it doesn't help them very much to have a little higher per hour if they're not getting the jobs. Let me ask you this.

Secretary **Baker**. Well, maybe there's a fundamental disagreement between us with respect to whether real earnings have declined during this administration. Our view is that they have not. Your view may be that they have. I'll be glad to get our statisticians to come up and work with yours if you want.

Senator **Proxmire**. Well, let me proceed on business investment plans.

In your prepared statement, you suggest that business fixed investment will be an important source of economic growth this year than in the recent past. Throughout most of this decade, net nonresidential fixed investment has been unusually weak. It actually declined in 1985 and 1986, and those are the last years for which we have any data.

Is your statement that investment will contribute to growth this year simply a forecast or is there hard data that businesses are increasing their spending for plant and equipment?

Secretary **Baker**. I'll have to get you an answer for the record, Senator. I can't give you an answer to that right now.

[The following information was subsequently supplied for the record:]

The administration forecasts that real gross nonresidential fixed investment will grow by 4.4 percent over the four quarters of 1988. This forecast is based on (1) results of surveys of investment plans, (2) strength in the traditional leading indicators of capital spending, and (3) forward momentum currently exhibited by the industrial sectors of the economy. The administration is not alone in forecasting robust investment in 1988. The latest Wharton forecast, for example, indicates 6.4 percent rise across the four quarters of this year.

The most recent Commerce Department survey of business investment plans points to a 7.3 percent rise in real outlays for plant and equipment in 1988. Such surveys have typically been reliable predictors of movements in capital spending. New orders for nondefense capital goods in real terms, a leading indicator of future purchases of capital goods, were 11.7 percent higher in 1987Q4 as compared with 1986Q4. The backlog of unfilled orders for such goods in December stood 14.4 percent above a year earlier. Finally, rates of capacity utilization in a number of manufacturing industries are at very high levels. When these rates of capacity utilization have been reached in the past, producers have typically responded by augmenting capacity, that is, increasing investment expenditures.

Senator **Proxmire**. All right. Let me ask you, then, one final question.

This is kind of a wrapup for me. For fiscal year 1989, the administration estimates that the deficit will be $138.5 billion under current policies. The Congressional Budget Office estimates the deficit will be $176 billion. Now that's a difference of $40 billion dollars.

That's an enormous difference. What accounts for that sharp difference?

Secretary **Baker**. What accounts for the difference primarily is the fact that CBO is more pessimistic about real growth. They come in at 1.8 percent for 1988. We come in at 2.4 percent.

The second major contributing factor, as I understand it, is they are more pessimistic with respect to interest rates than we are. They forecast higher interest rates than we do. Again, on both counts, the experience since those estimates were made runs in our favor and against CBO.

Senator **Proxmire**. Thank you, Mr. Chairman.

Representative **Wylie**. Mr. Chairman, may I just make one observation here?

We've gone through this from time to time as to whether the hourly wage earnings are up or not up. Mrs. Norwood comes before us with her Bureau of Labor Statistics figures.

The hourly earnings measure, as she points out, doesn't include bonuses, fringe benefits, lower taxes. So the wage is not the whole picture, I would point out to the Senator from Wisconsin.

But the employment cost index, according to the Bureau of Labor Statistics, shows an increase of at least 7 percent since 1981, after inflation.

So I think you're right in your statistics, Mr. Secretary. Thank you very much. You're an outstanding witness.

Secretary **Baker**. Thank you, Congressman.

Senator **Proxmire**. Was that in real terms?

Representative **Wylie**. In real terms.

Senator **Proxmire**. Since 1981?

Representative **Wylie**. Real terms.

Senator **Sarbanes**. Yes. But I think the Senator from Wisconsin made a good point. You have to relate how many hours a week a person works in order to get a picture of what they're earning, what their standard of living is.

Senator **Proxmire**. And there hasn't been any real changes in the fringes.

Representative **Wylie**. I guess the point I would make is that the issue is debatable, but also, employment has increased among low-income persons, low-income wage earners during that period of time. Thank you.

Senator **Sarbanes**. Mr. Secretary, we very much appreciate your coming before the committee. As always, you've made a very able presentation and we thank you very much for it.

Secretary **Baker**. Thank you, Mr. Chairman. It's been a pleasure to be here.

Senator **Sarbanes**. The committee stands adjourned.

[Whereupon, at 12:15 p.m., the committee adjourned, subject to the call of the Chair.]

THE 1988 ECONOMIC REPORT OF THE PRESIDENT

TUESDAY, MARCH 15, 1988

Congress of the United States,
Joint Economic Committee,
Washington, DC.

The committee met, pursuant to notice, at 9:35 a.m., in room SD-562, Dirksen Senate Office Building, Hon. Paul S. Sarbanes (chairman of the committee) presiding.

Present: Senators Sarbanes, Melcher, Symms, and D'Amato; and Representatives Scheuer, Solarz, and Snowe.

Also present: Judith Davison, executive director; and William R. Buechner and Dale Jahr, professional staff members.

OPENING STATEMENT OF SENATOR SARBANES, CHAIRMAN

Senator Sarbanes. The committee will come to order.

This morning the Joint Economic Committee resumes its annual hearings in conjunction with the Economic Report of the President for 1988, which we received in testimony from Chairman Sprinkel a few weeks ago. We are very pleased to have as our witness this morning Hon. Alan Greenspan, the Chairman of the Board of Governors of the Federal Reserve.

We are entering a year of uncertainty for economic forecasters and difficult challenges for economic policymakers. There are conflicting signs of strength and weakness, with strong employment growth in February counterbalanced by a year-long decline in housing starts and construction spending, the inventory overhang from the fourth quarter of last year and prospects for continued slow growth in the rest of the world.

Given these divergent signals with respect to the economy's direction, economic policy must walk a tight-rope. If policy becomes too restrictive, there is a serious risk of precipitating a downturn. If, on the other hand, monetary and fiscal policies provide too much stimulus, there is a risk of overheating the economy and disrupting financial markets with anticipation of higher inflation. Much of the challenge of maintaining a steady course falls to the Federal Reserve.

Walking this tightrope will be made more difficult by problems inherited from the recent past. Our continued dependence on foreign sources of capital has made monetary policy less autonomous, since we must keep one eye on the behavior of our foreign creditors while keeping the other eye on the performance of our domestic economy. The large Federal deficit has put severe restrictions on the use of fiscal policy, a problem that could become serious if growth slows in the near future or if the economy enters a recession.

The committee will now turn to Chairman Greenspan, who must navigate this tightrope, for his comments on the economic outlook and economic policy for 1988.

Mr. Chairman, before we hear from you, I'll turn to my colleagues to see if they have an opening statement. Senator D'Amato.

Senator D'AMATO. Mr. Chairman, I'm delighted to see my good friend, Alan Greenspan, our Chairman, here once again. There certainly are some questions I would be very much interested in getting Alan's response to, particularly the questions concerning huge foreign investments that continue to take place. There are many who are saying we should be concerned about this. I know he touches on this in his prepared statement. I would like to submit my opening statement in its entirety so we can get the opportunity of listening to the Chairman and asking some of our questions.

Senator SARBANES. Thank you very much. Your opening statement will be included in full in the record.

[The written opening statement of Senator D'Amato follows:]

WRITTEN OPENING STATEMENT OF SENATOR D'AMATO

MR. CHAIRMAN, I WOULD LIKE TO WELCOME TO THE JOINT ECONOMIC COMMITTEE THIS MORNING THE DISTINGUISHED CHAIRMAN OF THE FEDERAL RESERVE, ALAN GREENSPAN. I LOOK FORWARD TO YOUR TESTIMONY ON THE ECONOMIC OUTLOOK FOR 1988.

AT THE THREE PREVIOUS HEARINGS ON THE 1988 ECONOMIC OUTLOOK, THE COMMITTEE HAS HEARD FROM A VARIETY OF WITNESSES ATTESTING TO THE CONTINUED STRENGTH OF OUR ECONOMY. UNEMPLOYMENT IS AT AN ALL TIME LOW, INFLATION HAS BEEN BROUGHT UNDER CONTROL, AND INTEREST RATES ARE AT AN ACCEPTABLE LEVEL. WE ARE IN THE MIDST OF THE LONGEST PEACETIME ECONOMIC EXPANSION IN THE HISTORY OF OUR NATION. OUR NATION'S MONETARY POLICY HAS PLAYED A MAJOR ROLE IN KEEPING OUR ECONOMY STRONG.

ALTHOUGH THE ECONOMIC OUTLOOK IS BRIGHT, WE ARE STILL LIVING UNDER THE CLOUD OF THE ENORMOUS BUDGET AND TRADE DEFICITS. WHILE THERE HAS BEEN A GRADUAL IMPROVEMENT IN THE NATION'S TRADE DEFICIT, THE SAME HAS NOT BEEN TRUE OF THE

BUDGET DEFICIT - ALTHOUGH IT IS FROM A LACK OF IDEAS. WE HAVE HEARD A PLETHORA OF SUGGESTIONS ON HOW TO REDUCE THE DEFICIT RANGING FROM SEVERE CUT BACKS IN SOCIAL PROGRAMS TO RAISING TAXES TO THE IMPOSTITION OF USER FEES. IN FACT, CHAIRMAN GREENSPAN HAS BEEN AN ADVOCATE OF ONE OF THESE PROPOSALS: ESTABLISHING A .15 CENT GASOLINE TAX ON CONSUMERS. I LOOK FORWARD TO THE CHAIRMAN'S COMMENTS ON THIS PARTICULAR PROPOSAL. I ALSO LOOK FORWARD TO HIS ECONOMIC FORECAST FOR THE COMING YEAR.

THANK YOU, MR. CHAIRMAN.

Senator **Sarbanes**. Congressman Scheuer.

OPENING STATEMENT OF REPRESENTATIVE SCHEUER

Representative **Scheuer**. It's a pleasure for us all to welcome you here this morning, Mr. Greenspan.

I hope that you will go somewhat beyond the technicalities of fiscal policy and so forth to give us at least a brief sketch of where our economy is heading and the kind of policies that the new President might want to be thinking about starting next January.

Our economy is in a state of crisis. We're spending $160 or $170 billion more than we're earning. We've turned from the world's greatest creditor nation to the world's greatest debtor nation in 2 or 2½ years. Our debt is greater than all of the Latin American debt, the Brazilian, the Mexican debt, and other Latin American countries, combined. We have to learn how to spend less, save more, invest more in research and development, invest more in new plant and equipment, and in general make our economy more lean and mean and more productive so that we can emerge once again as a major player in global commerce.

We're not competitive now. We've got to be competitive. Otherwise, this hemorrhaging of jobs abroad is going to send us on a slippery slope that will condemn us to the process that England has gone through.

If you can address some of these broader issues that will face the Congress and the next President, I think we would all appreciate it very much. And, again, it's a delight to have you here this morning.

Senator **Sarbanes**. Mr. Chairman, we would be happy to hear from you.

STATEMENT OF HON. ALAN GREENSPAN, CHAIRMAN, BOARD OF GOVERNORS, FEDERAL RESERVE SYSTEM

Mr. **Greenspan**. Mr. Chairman, I will respond to the questions of your colleagues upon presentation of my statement, but I would also like to excerpt from that statement and request that the full text be included in the record.

Senator **Sarbanes**. That will certainly be done.

Mr. **Greenspan**. As usual, Mr. Chairman, I am pleased to appear before this committee to discuss the current economic situation and the outlook for 1988. As you know, the Federal Reserve submitted its semiannual report on monetary policy to the Congress about 3 weeks ago. That report and the accompanying testimony discussed in some detail the monetary policy developments of 1987 and the Federal Open Market Committee's policy targets for 1988.

I have summarized much of that report in my prepared statement and I won't go over them. Today, however, I would like to turn to some more general considerations, particularly the process of external adjustment that's now underway and the challenge that it poses to our economy.

A couple of decades ago, we still viewed our economy as being relatively self-contained. We thought of business cycles largely in terms of domestic spending, inventories and production; foreign trade did not play a major role. Businesses saw their competition as being the firm down the road or in the next city or State, not the producer on the other side of the world. We recognized, of course, that American economic activity and policies materially affected the rest of the world. Developments outside our borders, however, appeared to have little impact on economic activity in this country.

This has all changed in recent years. Our economy today is being driven by external forces and is coming to resemble more nearly the open, trade-based economies of Europe than the insulated economy of our own past. We are increasingly affected by developments outside our borders and need to learn to do business there. Despite the attendant complications, our own policies are going to have to be shaped with close surveillance of what is happening in the rest of the world.

Particularly striking evidence of a changed economic climate was the deterioration of our external balance over the first half of the 1980's, a period in which import growth far outpaced the rise in exports. The causes of this imbalance were complex, but its effects on consumers and businesses were relatively clear. Consumers benefitted from having access to a broad range of good-quality imports, while the producing sectors that are heavily affected by foreign trade suffered a loss of market share, both domestically and worldwide. In manufacturing, which accounts for nearly two-thirds of our exports, production was sluggish, layoffs mounted, and pressures for protectionism rose. Agriculture also suffered as the export boom of the 1970's turned into the export bust of the 1980's. Overall, from mid-1980 to the summer of 1986, real net exports of goods and services fell by an amount equal to 6 percent of real GNP.

Fortunately, this situation has started to change. In volume terms, our external sector has been improving and accounted for nearly half a percentage point of GNP growth over the four quarters of 1987. As I noted earlier in my prepared statement, manufacturing growth was especially robust last year, and the current backlog of orders suggests that factory output should be well maintained over the near term.

However, just as the deterioration of our external account created serious dislocations for the domestic economy in recent years, the swing back toward better balance also may create difficulties, though of a different nature. These adjustments—and the way that we deal with them—will go far toward shaping the economic outlook for a number of years to come.

Let me illustrate by drawing some comparisons between the current situation and other episodes from our recent economic history. When real exports bottomed out in the summer of 1986, the Nation's total spending for goods and services, including inventory investment, exceeded the comparable domestic production of goods and services by about 4.25 percent, a gap unprecedented for the postwar period. By comparison, production and spending were closely matched throughout much of the 1950's and 1960's; and even in the more volatile decade of the 1970's, spending did not depart from production by more than a couple of percentage points.

Those smaller gaps of the 1970's eventually closed, largely because of growth in the volume of exports. But the transitions back toward external balance were not smooth, either in the early part of the decade or in the late 1970's. Rather, the transitions were marked by strongly competing demands on domestic resources, an overheating of product markets, and widespread inflationary pressures.

Of course, history does not have to repeat itself, and in harkening back to these past episodes, I do not mean to suggest that the economy will inevitably follow a similar path in the years immediately ahead. Indeed, the world is more competitive than it was 10 or 15 years ago, and recognition by business and labor of the need to stay competitive may help to quell whatever latent inflationary tendencies arise.

What is clear is that a major adjustment is underway. As part of the move back toward external balance, export growth could place stronger demands on a domestic resource base that already is operating at high levels of utilization is some areas. To date, lead times in the deliveries of production materials remain moderate, implying for the moment little pressure from capacity restraints. Nevertheless, our experience from the 1970's, when smaller external adjustment took place, should make us cautious about thinking that this adjustment can be accomplished without some upward pressures on prices. Ideally, one can conceive of a strengthening of exports meshing neatly with a slowing of domestic spending in such a way as to maintain utilization levels for labor and capital without overheating. Certainly if growth is moderate in the period ahead, bottlenecks should not be a serious problem. Realistically, however, one has to recognize that events in the real world may not mesh as neatly as contemplated and that the adjustment may not proceed as smoothly as we would like.

Although the exact path of adjustment cannot be predicted with precision, we know that there are a number of actions that can be taken to help make the process smoother than would otherwise be the case.

Monetary policy needs to remain supportive of the expansion but also alert to the possibility of a reemergence of inflation. Policymakers must be especially mindful that the cost of temporizing in the face of accumulating price pressures would be a far more serious and painful adjustment down the road.

After several years of debate, Congress is understandably tired of wrestling with the budget deficit issue. The temptation is great to lay it aside for a year or permit small retreats from the real progress that has been achieved to date. However, there are risks in delaying or retreating, even a little, on an issue of such great importance. It is urgent that the Congress fully implement the deficit-reduction measures agreed to in December and continue to consider additional measures that might be taken to lock in further progress in the outyears.

As part of the coming adjustment, this Nation must find ways of generating sufficient domestic savings to finance investment and maintain the productivity gains that are needed to keep us competitive in world markets. Over the course of the expansion, the adverse implications of a low domestic saving rate have been temporarily obscured, as a large inflow of capital from abroad has made it possible to finance a large Federal deficit and a high level of consumption and investment spending without undue pressures on the credit markets. However, there are limits to how long a country can depend upon savings from abroad, and at some point we will have to revert to financing our future from our own resources. Indeed, the pressures experienced in the foreign exchange and financial markets last year suggest that those limits are closer than they were before.

Nor can we count on a major pickup in private savings. We have endeavored in recent decades to implement tax policies to augment household and business savings; however, these policies have not been demonstrably successful. Accordingly, it will become doubly important for the Federal Government to reduce its demands on the credit markets by cutting the budget deficit. Indeed, as I have suggested previously, we may have to consider at some point whether the Nation's inability to boost private saving argues for a Federal budget policy aimed at generating surpluses.

Foreign governments also must play a part, if the adjustment process is to work smoothly in the context of a growing world economy. During most of this expansion, the purchases of goods by U.S. businesses and households have provided a strong impetus for production gains abroad. Now that process must work in reverse. Other countries need to promote growth in their economies, reduce trade barriers, and in general ensure receptive markets for exports from the United States and elsewhere. The chances of attaining access to markets abroad would be damaged, of course, if the United States itself were to embrace a greater protectionism, a temptation that I earnestly hope we will avoid.

Let me conclude, Mr. Chairman, by saying that I view the outlook as satisfactory, but not without risks. Our economy was dealt a potentially severe shock last October, and at present, we seem to be weathering that shock perhaps better than might have been expected. Looking ahead, we know that the economy will be heavily influenced by the ongoing correction of fundamental internal and external imbalances. However, the broad contours of the coming adjustment are relatively clear and should not come to us as a surprise. Although our place in the world is changing, the future can be prosperous if we remain attentive to the course of events and take those actions that we know are needed. Thank you.

Senator SARBANES. Thank you very much, Mr. Chairman. We appreciate your statement and, as I said, the entire prepared statement will be included in full in the record.

[The prepared statement of Mr. Greenspan follows:]

PREPARED STATEMENT OF HON. ALAN GREENSPAN

I am pleased to appear before this Committee to discuss the current economic situation and the outlook for 1988. As you know, the Federal Reserve submitted its semiannual report on monetary policy to the Congress about three weeks ago. That report and the accompanying testimony discussed in some detail the monetary policy developments of 1987 and the FOMC's policy targets for 1988. Today, I would like to summarize briefly the main points of those reports and then turn to some more general considerations, particularly the process of external adjustment that is now underway and the challenge that it poses to our economy.

The overall record shows 1987 to have been another year of significant economic progress. Real gross national product rose nearly 4 percent over the course of the year, job growth totaled 3 million, and the unemployment rate declined to 5-3/4 percent, its lowest level of the current decade.

Some sectors that had lagged earlier in the recovery exhibited particular strength last year. Buoyed by rising exports and a pickup in capital spending, industrial production in manufacturing surged 5-1/2 percent over the twelve months of 1987, and capacity utilization rose to its highest level in nearly eight years. Capacity use in the steel business was about 90 percent at the end of 1987, up from 65 percent a year earlier. Improvement also was evident in mining, oil extraction, and agriculture.

The year, however, was not without its setbacks. Inflation, which had dropped sharply in 1986, increased in 1987, owing to the bounce-back in oil prices and to the effects of the dollar's decline on prices of imported goods and their domestic substitutes. Concerns that these one-time price changes might trigger a more pronounced and more deeply-rooted upswing in inflation persisted through late summer, surfacing, at one time or another, in the form of upward pressures on commodity prices or rising long-term interest rates. Under these conditions, further declines in the exchange value of the dollar added to the general uncertainty regarding longer-run price prospects.

For much of the year, Federal Reserve policy leaned in the direction of countering potential inflationary tendencies in the economy, while seeking to maintain a monetary and financial environment compatible with sustainable growth. The discount rate was raised on one occasion, and growth in M2 ran lower than the target range that the Federal Open Market Committee had established early in the year. In view of the very rapid money growth of 1986, the perceived inflation risks, the strength in the real economy and the marked variations in money velocity in recent years, modest growth of the monetary aggregates was viewed as acceptable and appropriate.

The stock market crash of late October shifted the balance of risks, and the Federal Reserve modified its approach to monetary policy accordingly. In particular, we took steps to ensure adequate liquidity in the financial system during the period of serious turmoil, and we encouraged some decline in short-term interest rates as a precaution against the possibility of a significant retrenchment by households and businesses.

While some uneasiness still is apparent in the financial markets, the situation has calmed considerably since October. Interest rates have come down noticeably, and exchange rate pressures have moderated. In the real economy a buildup in business inventories late last year, coupled with the possibility that effects of the stock market crash might still be working through, suggested at the turn of the year that the growth of real GNP might slow in the first part of 1988. However, employment has continued to advance early this year, and, at present, deep or prolonged cutbacks in production do not seem likely. Consumer spending seems to be holding its own, export prospects remain favorable, and capital goods orders have been strong. Overall, the chances appear relatively good for maintaining the current expansion through another year. As of mid-February, the central tendency of FOMC members' and other Reserve Bank presidents' forecasts was for growth of real GNP of around 2 to 2-1/2 percent from the fourth quarter of 1987 to the fourth quarter of 1988; this is a slower rate of growth than in 1987, but is probably close to what the economy can maintain on a long-run basis. Exports seem likely to provide a major impetus for growth in 1988, while the growth in domestic demand may be relatively slow.

With respect to inflation, price increases have picked up in some markets this past year. However, in general, business and labor still seem to be exercising a considerable degree of restraint in their wage and price-setting behavior, and bottlenecks are not a serious problem at the present time. Should the FOMC's forecasts of moderate growth of real GNP over the coming year be realized, this situation is not likely to change much. The FOMC central tendency forecast was for a rise in prices, as measured by the GNP deflator, of about 3-1/4 to 3-3/4 percent in 1988--similar to the inflation performance in most recent years.

The central tendency of our projections for real GNP growth encompasses the Administration forecast that you are reviewing today; the central tendency range for inflation is slightly below the Administration forecast, but the difference is not significant.

In formulating its policy objectives for 1988, the Federal Open Market Committee, at its mid-February meeting, established monetary target ranges of 4 to 8 percent for both M2 and M3 over the four quarters of 1988. Expansion of money within these ranges is expected to support continued economic growth at a pace that is consistent with progress over time toward price stability. In recent years, of course, the relation of money to income has not been very stable. Accordingly, as the coming year unfolds, we will continue to keep a close eye not only on the behavior of the aggregates, but also on the overall performance of the economy.

Although the near-term prospects thus look reasonably encouraging, major uncertainties remain and we should not be complacent about the nation's economic future. To a considerable extent, we still are sailing in uncharted waters and are facing adjustments that have no precedent in our recent history. A couple of decades ago, we still viewed our economy as being relatively self-contained. We thought of business cycles largely in terms of domestic spending, inventories and production; foreign trade did not play a major role. Businesses saw their competition as being the firm down the road or in the next city or state, not the producer on the other side of the world. We recognized, of course, that American economic activity and policies materially affected the rest of the world. Developments outside our borders, however, appeared to have little impact on economic activity in this country.

This has all changed in recent years. Our economy today is being driven by external forces and is coming to resemble more nearly the open, trade-based economies of Europe than the insulated economy of our own past. We are increasingly affected by developments outside our borders and need to learn to do business there. Despite the attendant complications, our own policies are going to have to be shaped with close surveillance of what is happening in the rest of the world.

Particularly striking evidence of a changed economic climate was the deterioration of our external balance over the first half of the 1980s, a period in which import growth far outpaced the rise in exports. The causes of this imbalance were complex, but its effects on consumers and businesses were relatively clear. Consumers benefitted from having access to a broad range of good-quality imports, while the producing sectors that are heavily affected by foreign trade suffered a loss of market share, both domestically and worldwide. In manufacturing, which accounts for nearly two-thirds of our exports, production was sluggish, layoffs mounted, and pressures for protectionism rose. Agriculture also suffered as the export boom of the 1970s turned into the export bust of the 1980s.

Overall, from mid-1980 to the summer of 1986, real net exports of goods and services fell by an amount equal to 6 percent of real GNP.

Fortunately, this situation has started to change. In volume terms, our external sector has been improving and accounted for nearly half a percentage point of GNP growth over the four quarters of 1987. As I noted earlier, manufacturing growth was especially robust last year, and the current backlog of orders suggests that factory output should be well-maintained over the near-term.

However, just as the deterioration of our external account created serious dislocations for the domestic economy in recent years, the swing back toward better balance also may create difficulties, though of a different nature. These adjustments--and the way that we deal with them--will go far toward shaping the economic outlook for a number of years to come.

Let me illustrate by drawing some comparisons between the current situation and other episodes from our recent economic history. When real exports bottomed out in the summer of 1986, the nation's total spending for goods and services, including inventory investment, exceeded the comparable domestic production of goods and services by about 4-1/4 percent, a gap unprecedented for the postwar period. By comparison, production and spending were closely matched throughout much of the 1950s and 1960s; and even in the more volatile decade of the 1970s, spending did not depart from production by more than a couple of percentage points.

Those smaller gaps of the 1970s eventually closed, largely because of growth in the volume of exports. But the transitions back toward external balance were not smooth, either in the early part of the decade or in the late 1970s. Rather, the transitions were marked by strongly competing demands on domestic resources, an overheating of product markets, and widespread inflationary pressures.

Of course, history does not have to repeat itself, and in harkening back to these past episodes, I do not mean to suggest that the economy will inevitably follow a similar path in the years immediately ahead. Indeed, the world is more competitive than it was 10 or 15 years ago, and recognition by business and labor of the need to stay competitive may help to quell whatever latent inflationary tendencies arise.

What is clear is that a major adjustment is underway. As part of the move back toward external balance, export growth could place stronger demands on a domestic resource base that already is operating at high levels of utilization in some areas. To date, lead times in the deliveries of production materials remain moderate, implying for the moment little pressure from capacity restraints. Nevertheless, our experience from the 1970s, when smaller external adjustments took place, should make us cautious about thinking that this adjustment can be accomplished without some upward pressures on prices. Ideally, one can conceive of a strengthening of exports meshing neatly with a slowing of domestic spending in such a way as to maintain utilization levels for labor and capital without overheating. Certainly, if, as I noted earlier, growth is moderate in the period ahead, bottlenecks should not be a serious problem. Realistically, however, one has to recognize that events in the real world may not mesh as neatly as contemplated and that the adjustment may not proceed as smoothly as we would like.

Although the exact path of adjustment cannot be predicted with precision, we know that there are a number of actions that can be taken to help make the process smoother than would otherwise be the case.

Monetary policy needs to remain supportive of the expansion but also alert to the possibility of a re-emergence of inflation. Policymakers must be especially mindful that the cost of temporizing in the face of accumulating price pressures would be a far more serious and painful adjustment down the road.

After several years of debate, Congress is understandably tired of wrestling with the budget deficit issue. The temptation is great to lay it aside for a year or permit small retreats from the real progress that has been achieved to date. However, there are risks in delaying or retreating, even a little, on an issue of such great importance. It is urgent that the Congress fully implement the deficit-reduction measures agreed to in December and continue to consider additional measures that might be taken to lock in further progress in the outyears.

As part of the coming adjustment, this nation must find ways of generating sufficient domestic saving to finance investment and maintain the productivity gains that are needed to keep us competitive in world markets. Over the course of the expansion, the adverse implications of a low domestic saving rate have been temporarily obscured, as a large inflow of capital from abroad has made it possible to finance a large federal deficit and a high level of consumption and investment spending without undue pressures on the credit markets. However, there are limits to how long a country can depend upon savings from abroad, and at some point we will have to revert to financing our future from our own resources. Indeed, the pressures experienced in the foreign exchange and financial markets last year suggest that those limits are closer than they were before.

Nor can we count on a major pickup in private saving. We have endeavored in recent decades to implement tax policies to augment household and business saving; however, these policies have not been demonstrably successful. Accordingly, it will become doubly important for the federal government to reduce its demands on the credit markets by cutting the budget deficit. Indeed, as I have suggested previously, we may have to consider at some point whether the nation's inability to boost private saving argues for a federal budget policy aimed at generating surpluses.

Foreign governments also must play a part, if the adjustment process is to work smoothly in the context of a growing world economy. During most of this expansion, the purchases of goods by U.S. businesses and households have provided a strong impetus for production gains abroad. Now that process must work in reverse. Other countries need to promote growth in their economies, reduce trade barriers, and in general ensure receptive markets for exports from the

United States and elsewhere. The chances of attaining access to markets abroad would be damaged, of course, if the United States itself were to embrace greater protectionism, a temptation that I earnestly hope we will avoid.

Let me conclude, Mr. Chairman, by saying that I view the outlook as satisfactory, but not without risks. Our economy was dealt a potentially severe shock last October, and at present, we seem to be weathering that shock perhaps better than might have been expected. Looking ahead, we know that the economy will be heavily influenced by the ongoing correction of fundamental internal and external imbalances. However, the broad contours of the coming adjustment are relatively clear and should not come to us as a surprise. Although our place in the world is changing, the future can be prosperous if we remain attentive to the course of events and take those actions that we know are needed.

Senator **Sarbanes**. In his statement last week to the Joint Economic Committee, Secretary Baker testified that a further decline in the value of the dollar would be counterproductive and that the United States will work closely with our trading partners to foster exchange rate stability.

That testimony came just 1 day after Prime Minister Thatcher, in a statement to Parliament, said the British Government would not intervene to stop the rise of the pound.

This suggests that the December 22 agreement among the G–7 countries to stabilize the dollar may not be as firm an agreement as Secretary Baker has suggested.

What part did the Federal Reserve have in reaching the December 22 agreement, and what function does the Fed have in carrying out that agreement?

Mr. **Greenspan**. I was involved personally in discussions with both Secretary Baker and several of the finance ministers and central bankers in what was a series of telephone conferences. I was involved in the communique, and I subscribe to the substance of what was finally issued.

Senator **Sarbanes**. In your opinion, are the other G–7 countries as fully committed to this agreement as Secretary Baker has indicated? And in particular, how do you square the statement of Prime Minister Thatcher with respect to the pound?

Mr. **Greenspan**. I think one has to distinguish between the general relationship amongst the currencies and the specific issue of sterling versus the mark, which the Bank of England had hoped to hold at sterling equal to 3.0 marks.

The pressures of the markets overwhelmed that situation temporarily, and as far as I can judge, what they chose to do was correct, and I think it would have been very difficult for the Bank of England in conjunction with the other members of the G–7 to have held that relationship.

I don't think that one should try to override market forces when they are particularly strong, but the main issue of the G–7 accord is to coordinate macroeconomic policies in a manner which would minimize those types of events to a point where they would not have any significant negative impact on the balance of international trade and international financial and economic activity.

Senator **Sarbanes**. According to an article in the Sunday Post, you stated that while a stable dollar is a desirable objective, it cannot be decreed. If one tries to read behind that phrase, it may seem to suggest that the Fed would not necessarily act to defend the dollar if it begins to decline again.

Would you comment on that?

Mr. **Greenspan**. Well, I'd just as soon not comment on specific Federal Reserve policy in that regard. All I will say, basically, is that what I meant by that statement is something I've said over the years and which I think is reasonably clear from the evidence, that we cannot under current international financial institutions lock in a fixed bilateral exchange rate of the dollar against all of the other major currencies, even if we should choose to do so, because it would create imbalances in the international financial system which I don't think we would be able to handle.

I think the G–7 agreement is for general stability, and in that regard, it has been, in my judgment, a reasonably successful exercise and something which we should continue to pursue.

Senator **Sarbanes**. How much of a problem do you think it is for us on the trade front that certain countries are fixing their currency against the dollar and sustaining it in order to gain a trade advantage? I'm thinking of some of the Pacific Rim countries in particular.

Mr. **Greenspan**. I think it is something of a problem. I think it is very difficult to argue in favor of an economic balance for Taiwan, for example, when they build up reserves amounting to $76 billion, which is another way of saying that there's an adjustment process which is not happening.

I certainly trust that they will move in a direction which brings them into better equilibrium both with us and the rest of their trading partners.

Senator **Sarbanes**. Actually, this committee has issued a staff study on the Taiwan economy which focuses on that very point and the fact that, contrary to established theory, we have not had the expected adjustments to reflect the underlying trade situation, which has only exacerbated the underlying trade situation.

There's going to be a summit in Toronto of the major economic powers. In your view, what should be on the agenda of that summit?

Mr. **Greenspan**. I think that general review of macroeconomic coordination at a level one step above what the G–7 group has been engaged in I think would be useful. I think that to have the heads of government and the heads of state review the general agreements and procedures implicit amongst the finance ministers and the central bankers is a useful activity.

I have not given enough thought at this stage to be very useful in adding anything which might be novel to what I think is a relatively obvious agenda on issues of economic and trade matters, but my general view of summits—and this one in particular—is that it is very helpful to have these periodic meetings in which heads of government are involved in the required macroeconomic policy coordination, which, I think, is going to be an ever-increasing factor in the economic policies of the various major trading governments of the world.

Senator **Sarbanes**. Do you think the United States is carrying a disproportionate share of the responsibility for world economic policy, in view of the growing strength of a number of other economies? Let me turn the question the other way. Do the countries that over a period of time have had growing economies and developed considerable economic strength now carry responsibilities commensurate with their relative economic strength?

Mr. **Greenspan**. I think that is becoming increasingly the case, and in a sense, it is largely market-determined. The very factor of, for example, the Japanese becoming a much larger element in world trade and finance in the last generation has brought them into contact with the remaining major industrial countries of the world in a manner which inevitably leads to far more action, activity, and responsibility on their part.

We have to remember that at the end of World War II it really was only the United States who had the capacity to try to organize international economic policy, and the very fact of the emergence of Europe, Japan, and the Pacific Rim countries is a remarkable testament to how successful that policy has been.

I think it's just a matter of time before more and more of the various elements of responsibility and burden will fall on our trading partners merely because that's the way the system automatically will work, and I think that it's pretty much on track. I would never argue that we are, at the moment, carrying an inordinately large load because I really don't believe that.

Senator **Sarbanes**. So you believe, at least within the economic dimension, that the allocation of responsibilities will be essentially self-adjusting?

Mr. **Greenspan**. I believe so.

Senator **Sarbanes**. Now let me ask you this question.

The United States essentially provides a security umbrella—the sharpest example is that we spend about 7 percent of GNP on defense and Japan spends 1 percent. If we were only spending 1 percent of GNP on defense, there are lots of other things we could be doing, among them eliminating the deficit problem.

But to what extent is it reasonable to insist that these disparities in the security burden be factored into the judgment on the allocation of economic responsibilities? The answer may be not that Japan should rearm, because there obviously are important political consequences of such a decision, but instead that Japan, in view of its much smaller security responsibility, should assume greater economic responsibilities.

Mr. **Greenspan**. Well, Mr. Chairman, you're asking an extraordinarily broad political question which, in a proper sense, is a judgment fundamentally outside the realm of economic policy decisionmaking. I certainly recognize its importance, but I don't think that it's the type of issue on which I would consider myself expert and, as a consequence, would probably think it inappropriate for me to respond.

The issue, however, is one I am fully aware of. We recognize that the way the policy ultimately develops will require corresponding adjustments in economic policy coordination.

Senator **Sarbanes**. Do you have a sense, as you seek to carry out your economic responsibilities, that you have been placed in a pressurized context, so to speak, because of the security dimension? That limits the U.S. ability to act and to move, does it not?

Mr. **Greenspan**. It certainly does, and I'm not denying that, in a proper aggregate policy mix sense, one has to coordinate economic and security policies. I am merely saying that that is not the role of the Federal Reserve, and I would just as soon not comment in that context, but I'm not saying that there is not a major tradeoff and a coordination of those policies is essential for a proper balance of American economic, political, and security interests.

Senator **Sarbanes**. My time has expired. Senator D'Amato.

Senator **D'Amato**. Thank you, Mr. Chairman.

Mr. Greenspan, there seems to be a growing concern related to the increase in foreign investment in the United States. Let me share with you—some say, for example, that we may be losing control of our destiny. We hear from many sources that America is a net debtor, which of course sounds a whole lot worse than if you would describe the same condition as America is the world's most attractive place to invest. America is the most attractive place to invest. But the question, nevertheless, is one that I believe is meritorious as it relates to should there be a balance, how much? I would say that there are some who have said as it relates to Japan that Japan is buying America and leasing it back to us.

Mr. Chairman, do you have any sense of concern about foreign investments in the United States?

Mr. **Greenspan**. Senator, excluding the security question which relates to a very narrow range of issues, I have very little concern about the issue of foreign investment in the United States.

On the contrary, I think that the integration of the world economies is a growing, inevitable, and probably unquestionably a desirable trend. The extraordinary shift at the end of World War II, which was initiated by the United States, for nations to invest, to put plants and facilities, and operate in other countries, is a highly desirable international trend.

I think the recovery of Europe after World War II was in no small measure the result of the very heavy direct investment by American companies in Europe which created an infrastructure, jobs, technology, and I think helped them to move forward.

We, of course—at least in this century—have not been on the other side of that question. We were, obviously in the 19th century. I think that we will find that foreign investment in the United States will be a plus.

Remember that foreign-owned companies, if they are in the United States, are American companies, governed by American law, by American custom, and have generally been very good corporate citizens in the localities in which they chose to locate.

So I have no concern at all about direct investment. In fact, it has a certain advantage over the vast holdings of short-term liquid assets, which is the alternative to that, and I think one thing one can say about fixed investment is that it's very difficult to move around and hence has very minor destabilizing effect on the economy, whereas liquid investment could very easily be destabilizing.

Senator D'**Amato**. Well, I certainly appreciate your response. I do share some concern—I must be candid with you—as I watch some of the major corporations from various countries move in this area of mergers and acquisitions to acquire key segments of the publishing industry and others and then I see that the countries from which these corporations are headquartered have in many cases very strict restrictions as it relates to percentage that can be acquired by a foreign or American investor or American corporation. And it would seem to me that we should look very closely at seeking at the very least reciprocity.

Now I will even make mention—dare mention—the fact that I think that, notwithstanding that we are in the process of—we will be—of considering the Canadian trade pact, that Canada is one of those countries in which this Senator sees some very severe restrictions limiting our opportunity as it relates to investment in key segments of their economy. That causes this Senator some concern and some concern that has been expressed to me by not only constituent groups but leaders in the economic community as well. I wonder if you would like to comment on that.

Mr. **Greenspan**. There's no question that there are undesirable restrictions abroad and I think we should do everything that we can to try to convince other countries that those sorts of restrictions are counterproductive.

I don't think it serves our personal purposes—or rather our domestic U.S. purposes—to restrict investment merely because they restrict ours because I think there is a positive good in that investment process.

Remember that even though we have had a significant increase in net investment in the United States from foreign countries, only now is the net annual outflow and inflow in balance and we still have total net investment abroad which is $50 billion greater than the investment here. So that the net balance is still hugely in our favor.

Senator **D'Amato**. If I might be permitted, Mr. Chairman, to depart just for a moment and ask the Chairman if he's at liberty to comment on any role that the Federal Reserve is playing as it relates to the economic turbulence in Panama, given the immense banking institution that exists there.

Mr. **Greenspan**. Well, as you know, the Federal Reserve with its deposits in the Federal Reserve Bank of New York does hold moneys from the Government of Panama. There's not much I can say, Senator, except, obviously, that we are in constant contact with both the State Department and Treasury on this issue. We are not the lead on this, and we clearly follow whatever appropriate action is considered by the executive branch or the Congress.

Senator **D'Amato**. It's always good, Mr. Chairman, to see Alan Greenspan. He's very forthright and direct in his testimony. He has been again today. I thank you for affording us this opportunity.

Senator **Sarbanes**. Thank you, Senator D'Amato. Congressman Scheuer.

Representative **Scheuer**. Thank you, Mr. Chairman.

Mr. Greenspan, you did in your statement answer or at least addressed many of the questions that I chatted with you about and I would have propounded a different question if I had read your statement first. It was an excellent statement on some of these broad public policy issues that I chatted about.

You do talk about the urgent need for deficit reduction measures, that we must lock in further progress in the outyears. You talked about ways of generating sufficient domestic savings to finance investment to keep us competitive. You mentioned the limits on how much we can rely on savings from abroad. We must finance our own future from our own resources. You urged a pickup in private savings. And above all, you sort of summed it up when you expressed the question as to whether, in view of the inability of our Nation to boost private savings, we shouldn't look at a Federal budget policy aimed at generating surpluses. When you said that, you just about said it all.

Can you flesh that out a little bit and give us some outline of what kind of a Federal budget we would have that would generate surpluses? How would we look at the entitlements? How would we look at the possibility for generating more Federal revenues from perhaps a sales tax, perhaps a value-added tax, perhaps a luxury tax, perhaps alcohol and tobacco tax increases, and above all, the possibility of a major increase in revenues from a gasoline tax? We presently tax ourselves, as you very well know, about one-twentieth of what the average of European countries whose economies are flourishing compared to ours at what they tax themselves at, roughly $1.50 to $2 a gallon compared to our 9 cents a gallon. If we taxed ourselves at half of their average, we would be taxing ourselves 70 to 80 cents a gallon which translates into $70 or $80 billion a year additional revenue.

Give us some version of what you have in the back of your mind when you talk about a Federal budget policy aimed at generating surpluses.

Mr. GREENSPAN. The reason I raise that question, Congressman, is that we are clearly in the position where by any objective measure our domestic savings are insufficient to finance the levels of capital investment that we would need to maintain rising standards of living. The budget deficit is a drain, a net reduction of savings and even were we to reduce it, that's probably still not enough.

Representative SCHEUER. Mr. Greenspan, we know that. We agree with you. You are right on the mark. What I'm asking you to do is to flesh out some of the broad elements in a Federal budget policy aimed at generating surpluses. What would the profile of that program look like?

Mr. GREENSPAN. Let me suggest that the Congressional Budget Office has done an extraordinarily helpful job in lining up virtually every conceivable alternative revenue increase or expenditure reduction which the Congress would have to address.

I might say that my view of the issue of surpluses is not something I'm contemplating as appropriate policy next year or the year after, but it's something for the 1990's, because in the near term, clearly we're going to have enough difficulty getting the budget deficit to zero not to mention going to surplus.

I don't think that the issues of economic policy are crucially determined by the particular mix of how you reduce the deficit, with the sole exception of a very important principle; namely, that if you endeavor to substantially reduce it from the revenue side or wholly from the revenue side, what's going to ultimately emerge is a seeming inability to get the deficit down because, as best I can judge, you will find that if you try to increase taxes inordinately, a significant part of those tax increases will merely show up as increased expenditures in the outyears and the deficit will not have been reduced.

But having said that, I think that the small distinctions that exist, whether you cut item "a" or "b" or whether you increase revenue "c" or "d," are really quite small relative to the end result.

Representative SCHEUER. You talk about the 1990's. Yet you very properly say there are limits as to how long a country can depend on savings from abroad and that we got some signals last fall that those limits may be closer than they were before. So there is a sense of urgency. I'm not sure that we can defer this indefinitely.

Mr. **Greenspan**. No. I agree with that. I was merely responding perhaps too narrowly, Congressman, to your issue with respect to surpluses.

The road to surpluses is the road from a $150 billion deficit to zero and that is more important than going to a surplus.

Represenative **Scheuer**. And you very properly made a distinction between fixed investments from abroad in real estate and plant and machinery and industrial assets and liquid assets. You mentioned that foreign markets were sending us a real signal on Black Monday.

Can you see the possibility that at some time we may be perceived as not such a safe haven, as Senator D'Amato mentioned, but that we might be a very risky haven if foreign countries simply believe we're incapable of getting our act together and that they might just withdraw their markers. They might say, "We want to cash in our chips." Can you tell us how fast that kind of a phenomenon can develop and what the result would be if the West Germans and the Japanese and other foreign creditors decided that we weren't a safe haven and we were a very risky haven and that they wanted to reduce their investment here and in as orderly way as possible they wanted to disinvest in our paper? What would the result of that be and how could we cope with that?

Mr. **Greenspan**. Well, I think you're raising the fundamental question, Congressman. I think if there's one issue that should concern us over the long run, it is precisely that. And I think that policies that we have to initiate and direct in this adjustment process which we've been discussing is really addressed to exactly that question.

At the moment, I think that, as best we can judge, there is a willingness to hold assets in the United States. In 1987, a very significant part—virtually all—of the current account deficit, as you know, was financed by foreign central banks' accumulation of dollar obligations. Fortunately, in the first quarter, we seemed to have restored a significant amount of private accumulation of U.S. dollar denominated assets and that, in a sense, was a very favorable turn. But over the long run we have to make certain that that attitude continues to prevail and the only way to do that is to maintain sensible domestic policies.

Representative **Scheuer**. Let me ask you one last question on the subject of Japan that the chairman raised.

Is there a role that the Japanese can play—not in increasing military expenditures with all the sensitivities that the chairman pointed out—but perhaps stepping in and shouldering some of the burden of helping the developing world economies improve? They're awash with capital.

Could they play a major role in helping Latin American economies cope with their debt problem? Could they play a role in investing and lending equity to the development of Third World economies? Could they pick up some of the burden of the family planning programs that we formerly played a leadership role in in Asia and Latin America and most especially Africa, where with a 3.5 percent average population growth and a 1 or 1.5 percent food growth, they're drowning. Could Japan play a major role here and perhaps close some of the gap that the chairman pointed out between their 1 percent investment in military and our 6 or 7 percent—could they close half of that gap by investing and lending in Third World economic and social development?

Mr. **Greenspan**. Well, Congressman, the other side of the very substantial cumulative trade surplus that the Japanese have enjoyed in recent years is an outflow of capital, and there has been a significant outflow of capital pretty much around the world and to Latin America, so that, in respect to the movement of capital, they are already moving in that direction. How far or in what form or what particular institutional relationships they require is something that the Japanese will have to make their own judgments on, but one of the things that is moving them into the world is this very large accumulation of net external assets on their part. That, in turn, I think brings with it an awareness of an increased responsibility. So I do see that emerging.

Senator **Sarbanes**. Mr. Chairman, let me just interject that I think Congressman Scheuer is onto a very important point. I'm not sure that it should simply be left to the Japanese to make the judgments, since they're operating in a context in which we have assumed the security responsibilities. So it seems to me that's a proper topic for the economic agenda.

Second, although the Japanese are undertaking some economic responsibility, a good part of it is bilateral rather than multilateral. Therefore, they simply tie the countries into an economic relationship which doesn't address the broader question of overall world economic growth.

Mr. **Greenspan**. Well, Mr. Chairman, I think that is an obvious topic for the economic summit because I think it is only at that level that appropriate policy discussions of this nature can be held.

Representative **Scheuer**. Thank you, Mr. Chairman.

Senator **Sarbanes**. Congresswoman Snowe.

Representative **Snowe**. Thank you, Mr. Chairman. Mr. Greenspan, we've been talking a great deal today about the trade deficit and obviously that is a very significant issue as it will be for some time to come, and as you know, the currency intervention of the U.S. in other countries in order to stabilize the value of the dollar. Also it's necessary to have policies accompany that currency intervention.

Are you confident that West Germany and Japan, for instance, will advance policies that will stimulate their economies to alleviate the burden that the United States has assumed for so long? Because obviously our trade deficit is part of our problem, but also is in response to the problems that we're having with other countries in trying to export to those countries.

Mr. **Greenspan**. Well, certainly, the Japanese economy has been behaving exceptionally well, and one can scarcely argue that they have not done an adequate job of economic stimulation.

The Federal Republic has created policies which ordinarily would be quite expansionary. Their monetary policy has clearly been expansionary in the most recent past and their fiscal policies obviously have been. The difficulty at the moment is that they have not yet triggered a rate of expansion which we would consider to be desirable.

We have had many bilateral and multilateral discussions with especially the Japanese and the Germans as well as the other members of the G-7 and the G-10, and we're all aware of these problems and processes, and we're aware of the fact that it's not a simple matter of just merely fine tuning a couple of switches and economic policy does what you want it to do. Were that the case, we would all be in much better shape.

But I do think that there is certainly a strong increasing sense of international responsibility on the part of all of the members of the G-7 and the G-10. I think that is implicit in increased endeavors to coordinate and an increased awareness—largely as a result of increased telecommunications, transportation, and the like—that the processes of internationalization, the growth of it, is inevitable, and that the sense that essentially domestic-oriented policies of the major countries can be made independent of their implications abroad is a notion which is on the wane.

Representative **Snowe**. Well, Secretary Baker indicated in his testimony last week that he was confident that these countries are moving in the right direction. So do you sense a dramatic shift in their attitude and sentiments in stimulating their economy, particularly in light of what happened on October 19? Because preceding October 19, there were several agreements which ultimately some of our allies reneged on—the Louvre Accord, for example. So I'm just wondering if this is going to be a short-term shift or in fact it's going to be long-term that will stabilize our situation and help us to reduce our trade deficit in addition to other measures that we should take.

Mr. **Greenspan**. I think it's long term, but when you're dealing with relationships amongst sovereign nations, forecasting is not always an easy activity. But from what evidence I've seen in these multilateral groups, whether it be the G-10 central bank governors' meetings which I attend periodically or the G-7 meetings or OECD or related meetings with the IMF or the World Bank, I sense an increasing understanding of the necessity of international cooperation, and I suspect that that will hold forth and be a major factor in continuing what I think is a very desirable trend.

Representative **Snowe**. I've had concerns in the past with the administration in the sense of depending too much on the dollar devaluation as a way to improve our trade deficit picture.

Would you agree or disagree with the fact that the administration has relied on the dollar devaluation to improve the trade deficit in and of itself as a method rather than doing a number of things to address the problem?

Mr. **Greenspan**. I think that it was part of a judgment several years ago when the dollar was perceived to be inordinately high. It surely is not the case today.

Representative **Snowe**. Is that trade deficit a result, as some have said, of too many imports and not too few exports? Is consumption the problem more than anything else or is consumption the major problem we have with our trade deficit or is it because we lack competitiveness in order to compete with other countries with our products?

Mr. **Greenspan**. I think it's both. Clearly, if one looks at the ratio of imports to domestic demand for a wide variety of goods, especially in the consumer area, it's been obvious that in the first part of the 1980's these ratios just went straight up and that there was tremendous incursion into American markets as a vast increase in domestic demand in the United States took hold.

In many respects, as you know, a number of consumer products were completely sourced from imports. Nonetheless, we also showed some considerable competitive weakness on the export side and it's only been fairly recently when, in part because of extraordinary improvements in productivity in manufacturing and some exchange rate adjustment earlier, that our export competitiveness has clearly taken on a very impressive dimension.

In fact, the order books of many export-oriented companies are just full to the brim and it is quite likely that if we had additional capacity in a number of areas, we would be exporting more. There's obviously got to be some, albeit relatively small, amount of restraint on exports coming from a tightness in our relative capacities to produce. I don't want to overemphasize that. It's not a big number, but I think it does suggest that a major change has occurred because the contemplation that we would be as tight as we are in those markets 3 or 4 years ago would have just boggled our minds.

Representative **Snowe**. I have read where some would suggest that the trade deficit will be around for 10 years or perhaps for as little as 5 years. Of course, it does depend on what we do.

But on the outside, how realistic can we be in terms of eradicating the trade deficit? How long will it take?

Mr. **Greenspan**. Well, first of all, let me just say that there's nothing in market adjustment which says we have to eliminate the trade deficit. What I think is the case is we have to very substantially reduce it. We might eliminate it. We might even go to a surplus. But I don't think that there's something sacrosanct about exact balance.

I think the process is underway. I think it will be erratic, inevitably, because that's the nature of that sort of adjustment process. There will be occasions when I think we will be distressed that it's moving more slowly than we would like. That will be offset by a period in which it will move a lot faster. But we are getting there. We are moving in the right direction. It will take several years. Exactly when one can visualize a level of trade deficit or trade balance which is no longer destabilizing, I really don't think anyone has the ability to forecast accurately.

Representative **Snowe**. Thank you.

Senator **Sarbanes**. Congressman Solarz.

Representative **Solarz**. Thank you very much, Mr. Chairman. Mr. Greenspan, could you possibly tell us how much of the Federal deficit is being financed by foreigners?

Mr. **Greenspan**. You can't in a direct way. And the reason, Congressman, is that money is fungible. In other words, we know basically how much total net capital is coming in and how much capital is going out, what we use domestically and what we produce domestically and it's a net against the net. So that all you can really appropriately define is of the total sources of funds, including the financing of our internal Federal Government deficit, what proportion of that aggregate is financed from abroad.

Representative **Solarz**. Why isn't it possible to determine what percentage of the Federal deficit is being financed by the foreign purchase of Treasury bills?

Mr. **Greenspan**. Because that doesn't give you the full answer. You can't really tell whether you are getting indirect financing or not, which does not directly reflect itself in a holding by a foreign financial institution, for example, of U.S. Treasury bills.

For example, if a Japanese life insurance company were to buy a U.S. corporate debt instrument from a domestic holder and that holder, taking the cash from Japan, were to use it to buy U.S. Treasury securities, it wouldn't show up as a holding by Japan of U.S. Treasury securities, yet in a certain sense, one would have to argue that that flow really financed it.

Representative **Solarz**. Well, I take your point and there are obvious complexities here. But shouldn't it be possible, at least in principle, to determine who is responsible for the direct purchase of Treasury bills?

Mr. **Greenspan**. Sure. The actual holdings of U.S. Government securities on foreign account is a published number.

Representative **Solarz**. And what is that?

Mr. **Greenspan**. On December 31, 1987, the number was 16.4 percent of U.S. Treasury securities was held on foreign account.

Representative **Solarz**. Now I gather from what you said that that would represent a kind of minimum percentage. If you introduced the more subtle and complex calculation, based on the notion of fungibility and the sort of indirect transaction which you mentioned, it would obviously be somewhat higher. Is there some percentage point at which alarm bells would begin to go off, and how far is this 16 percent rock bottom estimate of the percentage of the Federal debt—which in effect is in foreign hands—from the danger point?

Mr. **Greenspan**. Let me say this. Theoretically, that 16 percent is not necessarily a minimum because the same concept which I just discussed can be reversed, but I do agree with you. I think that probably is a minimum if you took direct as well as indirect.

I don't think that one can specifically answer the question in terms solely of the holdings of U.S. Treasury securities because there is the much broader question of what proportion of aggregate total securities outstanding, both private and government, are held on foreign private account, and it is difficult to judge at which point you create a problem. I also think it's important for us to define what do we mean by a problem. What I would mean by a problem is the type of issue which Congressman Scheuer was raising; namely, is there some point at which the aggregate amount of claims against the United States are so large that were they in large part to be removed would that cause us significant problems. I don't know what that number is. I think it is certainly higher than where we are now, perhaps a good deal higher, but the fact that the ratio of foreign to domestic security holdings is rising is a trend which should give us pause, and I think it does. I hope we will adjust it prior to reaching whatever level that danger point is.

Representative **Solarz**. In your statement you spoke about the need for us to find ways of increasing the domestic savings rate if we're going to maintain productivity gains and keep our competitive position in the international economy.

As you probably know, the personal savings rate is rather low these days. I think it's around 3.8 percent. I have a chart in front of me which suggests that since the end of World War II the historic average has probably been somewhere about 6 or 7 percent.

I guess I'd like to ask you two questions here. First, can you share any thoughts you might have with us about how we can increase the personal savings rate? Second, if we were to increase it to the level of the postwar average, how significant would that be, given the extent to which, by comparison, Japan has a personal savings rate of over 20 percent and the Federal Republic has a savings rate, I'm told of around 12 percent, so that, even if we got up to the historic average of the postwar period, we would still have a personal savings rate substantially below that of our major economic competitors?

Mr. Greenspan. We've come off the bottom of the under 4 percent savings rate. We're now somewhat higher, closer to 5 percent, but that is only a short-term phenomenon. You're certainly quite correct that even were we to go back to what one would consider to be the historic norm, that still is too low.

We have in the last 10 to 15 years engaged in a number of policy initiatives in this Government to enhance savings, mainly through the tax side but through a number of other vehicles as well.

It's clear that we have not been overwhelmingly successful. The result of that has led me to conclude that while it would be desirable to continue to seek out policies which ultimately would work, remembering that to bring the savings rate up you have to decrease consumption relative to income—we keep thinking in terms of IRA's or incentives to save in various special accounts. What we are learning is that most of that type of incentive tends merely to move savings from one pile to another. We have to think of it in terms of how do you reduce consumption relative to income. In my judgment, the equivalent of increasing the domestic savings rate is reducing the Federal budget deficit completely, and hopefully, as I was indicating to Congressman Scheuer a short while ago, moving eventually to a Federal Government surplus may be the way which we have to go.

Representative Solarz. Well, given our difficulties in bringing the Federal deficit into balance, one can only pause and reflect on the enormity of the difficulties we would confront if we decided we had to move into surplus.

Mr. Greenspan. I do think it focuses our attention on the size of the problem we confront.

Representative Solarz. We're now in terms of the unemployment rate, I gather, around 5.6 or 5.7 percent. This is my final question. How much lower can the unemployment rate go, in your judgment, without generating upward pressures on inflation. Could you let us know whether you have any rough calculation of how much of an increase in inflation further reductions on the order of 1 or 2 percent in the unemployment rate would produce so we can get a sense of the tradeoffs?

Mr. Greenspan. This is a notion which is debated amongst economists and the level of agreement is somewhat less than it is in most other subjects.

My own judgment is not all that far from what the Council of Economic Advisers indicated in their annual report which was related earlier this year.

I probably don't go as far as they do, but I think we clearly have some modest room on the downside, but not a very great deal. I certainly think it's less than a percentage point, and my impression is that it's closer to a half, maybe even somewhat less than that. But I don't think we're there yet. In other words, I do think we have room to move somewhat lower without triggering an unacceptable acceleration in wage and hence inflation costs.

Representative **Solarz.** And do you have any calculation of how much inflation goes up as unemployment goes down?

Mr. Greenspan. There are a number of calculations that address that question, Congressman Solarz. Frankly, none of them have I found very convincing because the econometric relationship is not stable, and I think I would create more of a sense of exactitude by quoting some of those numbers than I think they deserve.

Representative **Solarz.** Thank you, Mr. Chairman.

Senator **Sarbanes.** Senator Symms.

Senator **Symms.** Thank you very much, Mr. Chairman. Thank you, Mr. Greenspan, for being here today.

Along with Congressman Solarz' question, yesterday in USA Today in the Money Section there was an interesting article by Jim Henderson that said we're becoming a nation of savers and the key reason is because of demographics, that the babyboomers are now age 23 to 43. They're maturing into what economists call the prime savings years from 45 to 65, and that's going to change our savings rate.

Do you have a comment on that?

Mr. Greenspan. Well, I think it does over the very long run, although we've changed our demography quite considerably over the post-World War II period and it's not clear precisely how much actual savings have really significantly changed.

Savings theory used to reflect the notion that there was a certain normative relationship which people tended to adjust to and that even as the demographics change, you very rarely saw that number change. So I'm not altogether convinced that what changes we're going to get will be particularly large. I think they will be small, if they are visible, certainly not enough to address the types of questions that we have been discussing.

Senator **Symms.** Just to pursue that a little further, millions of Americans appreciate your work as Chairman of the Presidential Commission on Social Security, back in 1983 and, Jimmy Roosevelt notwithstanding, it appears now that there's a huge surplus building up in the trust fund. Senator Packwood and others have raised the question of what happens when the day comes when there are no Treasury bill auctions each Monday because the Social Security Trust Fund is buying them all?

According to the projections of the chief actuary of Social Security, there will be a sufficient cash-flow by the 1990's to be able to discontinue Treasury bill auctions, as a matter of fact.

Do you think that's a healthy situation? Should we be talking about not raising the payroll tax in 1990? Should we be talking about allowing Social Security Trust Funds to be invested in private capital formation, so that there would be more flexibility for lending institutions?

Mr. **Greenspan**. Senator, I think let's reflect on precisely what that concept means. If the Social Security Trust Fund rises to encompass the total outstanding Federal debt, it means, on a consolidated so-called unified budget basis including the Social Security and non-Social Security income and outgo funds, we are running a unified budget surplus which is sufficiently large to run the outstanding public debt down to zero.

When you think of it in those terms and we reflect on the issue of what Congressman Solarz and I were just discussing, about just getting the budget deficit down to zero and then getting to surplus, I think we have to realize that it is a view of the future which has no really significant possibility of emerging.

The notion that the Congress will enact huge unified budget surpluses in the 1990's and in the first part of the 21st century of an order of magnitude to pay off the national debt as it currently prevails strikes me as an issue to which we should not be giving considerable contemplation because its probability has got to be approaching zero.

Senator **Symms**. I think the move is to take the Social Security Trust Fund off budget, though.

Mr. **Greenspan**. That may be, but what you will merely find is that the problems will remain, excluding the offset from the Social Security System, in the rest of the budget. The problem will be just as severe.

Senator **Sarbanes**. If the Senator would yield on that point, wouldn't your effort to run a surplus be assisted or enhanced if the Social Security Trust Fund came off budget because the trust fund is projected to run large surpluses and its off-budget status would then focus the problem on the deficit question remaining in the rest of the budget? To the extent the budget deficit was worked down, even if not totally eliminated, the net position would move in the direction you advocated in your statement as far as the overall savings question is concerned.

Mr. **Greenspan**. If you're asking me whether or not tactically that would work in that direction, I suspect it would. The issue is whether or not one can contemplate, on a consolidated unified budget basis, adequate surpluses in the total accounts of an order of magnitude and for a prolonged period of time enough to run the total outstanding Federal debt to zero, and I merely say that I just find that an issue which, if one is addressing policy to avoid, I can think of other priorities which are far in front of that.

Senator **Symms**. Well, I guess the part that bothers me is that we keep hearing different opinions about all these numbers. I'd like to ask unanimous consent that at the appropriate place in the record, Mr. Chairman, we insert these actuary tables and those Senator Packwood prepared, so people can have access to them. I think it's a serious question, if we want to avoid a command economy, if the Government owns all of the savings then they have to be the main lenders. Is that correct?

Mr. **Greenspan**. That is correct, but I think to just take a step back, the issue of Social Security Trust Funds wholly invested in U.S. Treasury instruments merely means that the Social Security System is a transfer agent for financing other aspects of the Federal budget. Because, for example, if social security taxes go into a fund which is then invested in special securities, nonmarketable securities, the funds of which are used to finance other aspects of the budget, then it's not a savings issue. It would, however, be a savings issue—referring, Senator, to what you mentioned earlier—namely, if the Social Security System or any trust fund were to start to accumulate private securities. Then the issue of it being a funnel for savings in the system becomes operative and important.

Senator **Symms**. Why not cut the payroll tax and then raise the taxes on the general fund, to keep the accounting honest?

Mr. **Greenspan**. Well, it depends on how one views the financing of the system because even though the actuarial tables show a huge increase in the surplus, it is still less than what is actuarially required to fully fund all of the social security obligations. So in that sense, as large as those numbers are, they still don't, in an insurance and actuarial sense, fully fund the obligations of the system.

Senator **Symms**. Thank you very much. Thank you, Mr. Chairman. I ask unanimous consent that my opening statement and the actuarial charts be inserted in the record.

Senator **Sarbanes**. Without objection, so ordered.

[The written opening statement of Senator Symms, together with the actuarial charts referred to, follows:]

WRITTEN OPENING STATEMENT OF SENATOR SYMMS

We welcome Chairman Greenspan to our hearing this morning. Your appearance is most appreciated.

Mr. Greenspan, you have inherited a most welcome economic environment. When you first took over, the economy was approaching the enviable mark of 58 months of economic expansion. We now have added another 6 months to that record, and most forecasters are not predicting a downturn this year.

In fact, the consensus forecast of Blue-Chip Economic Indicators has been revised upward to 2.4 percent growth. That is the same as the Administration's forecast made three months ago. That also means that the Congressional Budget Office pessimistic forecast of 1.8 percent is on the low end of the scale. I'm not here to quibble about numbers. I just want to make sure that this hearing reflects the same confidence in the economy that American workers, taxpayers and consumers have, and that confidence is reflected in continuing economic expansion.

Mr. Chairman, the Federal Reserve is at the focus of several crucial issues. To name a few, you have a role in resolving the sensitive failing bank situation; dealing with a rapidly changing financial sector and how to regulate it; formulating monetary policy that has both domestic and global consequences; and analyzing the effects of huge international financial capital flows.

Again, thank you for coming, Mr. Greenspan.

ACTUARIAL NOTE

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SOCIAL SECURITY ADMINISTRATION

LONG-RANGE ESTIMATES OF SOCIAL SECURITY TRUST FUND OPERATIONS IN DOLLARS

by Harry C. Ballantyne, A.S.A.
Chief Actuary

This note presents long-range estimates of the operations of the combined Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI) Trust Funds.

Long-range trust fund operations typically are not shown in dollar amounts because inflation makes such amounts noncomparable over time. Instead, relative measures which are comparable over time have been developed. Two examples of such measures are cost rates and income rates, which express the cost and income of the program as percentages of taxable payroll. Another is the trust fund ratio, which expresses the assets of the trust funds as a proportion of the outgo during a specific period of time, usually the next year. These measures are discussed fully in the "1987 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds"[1] (1987 OASDI Trustees Report). They are the ones that have been used by Social Security program planners and legislators to evaluate the long-range actuarial status of the program and the long-range financial effect of proposed changes to the program.

Nonetheless, in view of the interest that continues to be expressed in long-range dollar values, this note presents long-range OASDI estimates in current dollars, together with several indices which can be used to convert current dollars into constant (1987) dollars. In addition, the Appendix to this note presents current-dollar estimates of a more limited nature for the HI program and for the combined OASDI and HI programs. It should be emphasized that any comparison of recent or near-term trust fund operations to longer term current-dollar estimates which do not reflect the very considerable effects of inflation—especially for a period extending 75 years into the future—would be very misleading.

Table 1 shows estimated operations of the combined OASI and DI Trust Funds—that is, income excluding interest, interest, total income, total outgo, and assets at the end of the year. These items are defined in footnotes to the table. The estimates are based on four sets of economic and demographic assumptions identified as alternatives I, II-A, II-B, and III, which are described in detail in the 1987 OASDI Trustees Report. The estimates of all these financial items are shown in current dollars.

A major consideration in converting current dollars to constant dollars is the selection of the index of conversion. Price indices adjust for the effects of price inflation. The price index used in this note is the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W, hereinafter referred to as "CPI"), which is published by the Bureau of Labor Statistics, Department of Labor. The CPI was chosen mainly because it is used to determine automatic increases in OASDI benefits.

Wage indices adjust for the combined effects of price inflation and real-wage growth. The particular wage index presented in this note is the "SSA average wage index," as defined in section 215(i)(1)(G) of the Social Security Act. This index is used to adjust many of the Social Security program amounts that are subject to automatic adjustment (such as the contribution and benefit base).

Payroll indices adjust for the effects of changes in the number of workers as well as for the effect of price inflation and real-earnings growth. This note presents the OASDI taxable payroll, which consists of all earnings subject to OASDI contribution rates, adjusted to include deemed wages based on military service and to reflect the lower effective contribution rates (compared to the combined employee-employer rate) which apply to tips and multiple-employer "excess wages."

Also shown are values of the gross national product (GNP). In addition to reflecting all of the effects of the three types of indices discussed above—price, wage, and payroll indices—the GNP values also reflect the effects of other changes in the national economy. The values of the Implicit Price Deflator for the Gross National Product, based on the projected values shown for the GNP, are similar to the values shown for the CPI.

The application of an interest rate is another way of converting dollar values through time. The selection of an interest rate can be based on many types of investments, such as those by individuals, groups, or the Social Security trust funds. The particular series of interest-rate factors presented in this note is based on the average of the assumed annual interest rates for special public-debt obligations issuable to the trust funds in the 12 months of the year, under each alternative.

The CPI, after several years of varying increases, is assumed to increase annually at rates of 2.0, 3.0, 4.0, and 5.0 percent for alternatives I, II-A, II-B, and III, respectively. Similarly, the average annual wage is assumed to increase by 4.5, 5.0, 5.5, and 6.0 percent. After the first few years, no explicit assumption is made about GNP growth; rather, estimates thereof are based on the complex interaction of many economic and demographic variables. Similarly, the estimates of payroll growth are based on the interaction of many

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[1] House Document No. 100-55, dated March 31, 1987.

SSA Pub. No. 11-11500

economic and demographic variables. Appendix A of the 1987 OASDI Trustees Report includes a more complete discussion of the payroll estimates. The ultimate annual interest rates are assumed to be nominal rates, compounded semiannually, of approximately 5.0, 5.5, 6.0, and 6.5 percent, for alternatives I, II-A, II-B, and III, respectively. These assumptions are the result of the compound effect of the ultimate annual increases assumed for the CPI (2.0, 3.0, 4.0, and 5.0 percent) with the respective ultimate real interest rates assumed (effective annual rates of 3.0, 2.5, 2.0, and 1.5 percent).

Table 1.—Estimated Operations of OASI and DI Trust Funds by Alternative, Calendar Years 1987-2065

[In billions]

Calendar year	Income, excluding interest	Interest	Total income¹	Total outgo²	Assets at end of year
Alternative I:					
1987	$226.9	$5.3	$232.2	$208.2	$69.9
1988	258.2	7.6	265.8	220.5	115.2
1989	277.3	11.1	288.4	232.2	171.5
1990	302.3	15.3	317.6	245.4	243.7
1991	321.4	19.9	341.3	257.8	327.2
1992	339.7	24.4	364.1	269.2	422.1
1993	357.1	28.7	385.8	281.0	526.9
1994	375.0	33.2	408.1	293.3	641.6
1995	393.6	38.3	431.9	306.2	767.3
1996	413.5	44.2	457.7	319.6	905.4
2000	513.2	77.9	591.0	364.5	1,670.2
2005	663.4	149.9	813.3	442.2	3,224.1
2010	846.4	260.8	1,107.2	583.6	5,549.9
2015	1,071.2	407.1	1,478.3	817.5	8,587.9
2020	1,348.5	584.6	1,933.1	1,153.3	12,249.6
2025	1,700.7	782.8	2,483.5	1,575.3	16,547.3
2030	2,163.0	1,044.6	3,207.6	2,067.0	21,775.6
2035	2,765.1	1,373.9	4,139.0	2,581.9	28,658.6
2040	3,533.7	1,831.9	5,365.6	3,169.1	38,263.6
2045	4,516.3	2,477.7	6,993.9	3,911.9	51,799.1
2050	5,779.3	3,375.7	9,155.0	4,901.9	70,592.2
2055	7,416.3	4,609.1	12,025.3	6,196.0	96,365.6
2060	9,529.0	6,298.3	15,827.2	7,850.6	131,705.9
2065	12,239.5	8,603.0	20,842.5	10,000.8	179,863.2
Alternative II-A:					
1987	226.1	5.3	231.3	209.7	68.5
1988	255.5	7.4	262.9	222.2	109.2
1989	273.9	10.7	284.6	235.7	158.0
1990	299.2	14.7	313.9	251.0	220.8
1991	318.4	19.0	337.4	265.4	292.8
1992	338.1	23.5	361.5	280.0	374.4
1993	357.5	27.9	385.5	295.4	464.4
1994	377.8	32.7	410.5	311.7	563.2
1995	398.9	37.9	436.8	328.8	671.3
1996	421.7	43.6	465.2	346.8	789.7
2000	529.7	74.4	604.1	408.5	1,444.1
2005	696.7	142.4	839.1	515.3	2,792.3
2010	903.9	248.7	1,152.6	700.4	4,818.0
2015	1,159.7	383.9	1,543.6	1,005.1	7,380.7
2020	1,475.8	533.2	2,009.0	1,452.0	10,132.8
2025	1,875.0	679.2	2,554.2	2,036.8	12,820.3
2030	2,398.4	811.5	3,209.9	2,738.8	15,253.0
2035	3,076.5	936.3	4,012.7	3,545.9	17,569.5
2040	3,939.7	1,069.5	5,009.3	4,479.8	20,075.4
2045	5,038.4	1,220.2	6,258.6	5,675.1	22,904.3
2050	6,433.5	1,373.3	7,806.8	7,267.1	25,738.4
2055	8,238.2	1,499.1	9,737.3	9,344.1	28,026.2
2060	10,567.0	1,574.3	12,141.3	11,973.9	29,354.4
2065	13,553.4	1,565.7	15,119.1	15,362.2	29,080.9
Alternative II-B:					
1987	$224.6	$5.2	$229.8	$208.7	$67.0
1988	252.2	7.3	259.4	222.6	103.8
1989	269.1	10.3	279.5	238.1	145.2
1990	295.3	14.2	309.4	255.1	199.6
1991	315.6	18.6	334.2	273.2	260.5
1992	337.5	23.2	360.7	291.1	330.2
1993	358.7	29.0	387.6	309.5	408.4
1994	382.6	33.0	415.7	328.9	495.2
1995	407.0	38.4	445.4	349.4	591.2
1996	433.2	44.1	477.3	371.1	697.3
2000	554.5	72.9	627.4	450.3	1,289.3
2005	748.9	140.8	889.7	583.5	2,545.4
2010	996.2	251.5	1,247.7	813.3	4,489.6
2015	1,310.2	391.7	1,701.9	1,195.6	6,909.4
2020	1,708.3	538.3	2,246.6	1,770.8	9,382.3
2025	2,225.4	659.4	2,884.8	2,550.7	11,393.6
2030	2,914.2	724.5	3,638.8	3,526.5	12,411.1
2035	3,829.6	718.8	4,548.4	4,691.5	12,213.2
2040	5,024.0	634.8	5,658.8	6,085.4	10,677.8
2045	6,582.6	447.5	7,030.1	7,898.6	7,320.4
2050	8,813.3	81.6	8,894.9	10,354.2	777.7
2055	(3)	(3)	(3)	(3)	(3)
Alternative III:					
1987	219.9	5.1	225.0	210.4	61.5
1988	240.4	6.3	246.7	224.3	83.8
1989	257.7	8.3	266.0	242.9	106.9
1990	277.3	10.3	287.6	264.9	129.6
1991	298.0	12.5	310.5	286.9	153.2
1992	321.2	14.6	335.8	308.2	180.8
1993	345.6	16.7	362.3	330.9	212.2
1994	371.4	19.0	390.4	355.2	247.4
1995	398.5	21.4	419.9	380.9	286.4
1996	427.8	23.9	451.7	408.4	329.6
2000	556.5	36.8	593.3	508.5	598.0
2005	765.7	73.7	839.4	676.5	1,247.8
2010	1,035.1	135.0	1,170.1	998.4	2,237.4
2015	1,376.8	189.7	1,566.5	1,455.8	3,049.0
2020	1,808.1	175.7	1,983.8	2,212.9	2,693.1
2025	(3)	(3)	(3)	(3)	(3)

[1] Total income consists of contributions, income from taxation of benefits, reimbursements from the general fund of the Treasury for the costs associated with special monthly payments to certain uninsured persons who attained age 72 before 1968 and also have fewer than three quarters of coverage, and interest income.

[2] Total outgo consists of benefit payments, administrative expenses, net transfers from the OASI and DI Trust Funds to the Railroad Retirement program under the financial-interchange provisions, payments for vocational rehabilitation services for disabled beneficiaries, and special monthly payments to certain uninsured persons who either attained age 72 before 1968 or who attained age 72 after 1967 and have at least three quarters of coverage for each year after 1966 and before the year of attainment of age 72.

[3] The combined OASI and DI Trust Funds are estimated to be exhausted in 2051, under alternative II-B, and in 2025, under alternative III.

Table 2 shows these economic variables or functions thereof. The form of these tables is similar to that of the tables on trust fund operations, in order to facilitate constant-dollar calculations that may be of interest to economists and financial analysts. It is left to the individual analyst to decide which index to use to accomplish his or her particular purpose.

Table 2.—Selected Economic Variables by Alternative, Calendar Years 1987-2065

[GNP and taxable payroll in billions]

Calendar year	Adjusted CPI[1]	SSA average wage index[2]	Taxable payroll[3]	Gross national product	Compound interest-rate factor[4]
Alternative I:					
1987	100.00	$18,309	$1,947	$4,499	1.0000
1988	103.07	19,240	2,081	4,831	1.0702
1989	106.17	20,269	2,232	5,181	1.1464
1990	109.02	21,269	2,378	5,533	1.2245
1991	111.40	22,240	2,529	5,878	1.2991
1992	113.63	23,172	2,673	6,193	1.3688
1993	115.90	24,098	2,810	6,506	1.4339
1994	118.22	25,094	2,952	6,836	1.5007
1995	120.58	26,109	3,100	7,182	1.5736
1996	123.00	27,198	3,257	7,546	1.6516
2000	133.13	32,434	4,035	9,286	2.0123
2005	146.99	40,418	5,200	11,913	2.5759
2010	162.29	50,369	6,614	15,112	3.2974
2015	179.18	62,769	8,336	19,027	4.2210
2020	197.83	78,221	10,447	23,843	5.4002
2025	218.42	97,478	13,123	29,952	6.9166
2030	241.15	121,475	16,663	38,011	8.8538
2035	266.25	151,380	21,278	48,571	11.3336
2040	293.97	188,647	27,206	62,105	14.5079
2045	324.56	235,088	34,780	79,386	18.5714
2050	358.34	292,963	44,543	101,685	23.7730
2055	395.64	365,065	57,182	130,563	30.4314
2060	436.82	454,962	73,523	167,847	38.9547
2065	482.28	566,965	94,462	215,853	49.8654
Alternative II-A:					
1987	100.00	18,251	1,940	4,478	1.0000
1988	103.61	19,145	2,063	4,789	1.0723
1989	107.31	20,154	2,209	5,127	1.1542
1990	110.78	21,188	2,352	5,478	1.2368
1991	114.09	22,223	2,509	5,835	1.3219
1992	117.51	23,306	2,664	6,185	1.4036
1993	121.03	24,382	2,817	6,537	1.4835
1994	124.66	25,541	2,977	6,909	1.5662
1995	128.40	26,731	3,145	7,302	1.6535
1996	132.25	28,013	3,324	7,718	1.7474
2000	148.85	34,050	4,186	9,853	2.1709
2005	172.56	43,457	5,457	12,647	2.8475
2010	200.05	55,483	7,054	16,382	3.7349
2015	231.91	70,787	9,008	20,994	4.8869
2020	268.84	90,344	11,396	26,688	6.4257
2025	311.66	115,304	14,397	33,883	8.4283
2030	361.30	147,160	18,347	43,387	11.0549
2035	418.85	187,818	23,487	55,814	14.5002
2040	485.56	239,709	30,054	71,766	19.0192
2045	562.90	305,936	38,396	92,134	24.9466
2050	652.56	390,460	49,020	118,169	32.7213
2055	756.49	498,337	62,755	152,037	42.9189
2060	876.98	636,019	80,497	195,961	56.2946
2065	1,016.66	811,730	103,230	252,538	73.8366
Alternative II-B:					
1987	100.00	$18,136	$1,925	$4,433	1.0000
1988	104.47	19,029	2,042	4,734	1.0784
1989	109.00	19,984	2,175	5,044	1.1654
1990	113.90	21,106	2,323	5,414	1.2529
1991	118.76	22,326	2,492	5,814	1.3633
1992	123.52	23,560	2,665	6,207	1.4846
1993	128.46	24,799	2,839	6,602	1.5959
1994	133.60	26,136	3,021	7,021	1.6894
1995	138.95	27,526	3,214	7,467	1.7762
1996	144.50	29,027	3,419	7,942	1.8880
2000	169.05	35,960	4,366	10,164	2.2917
2005	205.68	46,998	5,871	13,737	3.2142
2010	250.24	61,424	7,778	18,325	4.3197
2015	304.45	80,279	10,179	24,182	5.8053
2020	370.41	104,921	13,190	31,638	7.8018
2025	450.66	137,128	17,081	41,369	10.4850
2030	548.30	178,221	22,273	54,469	14.0909
2035	667.09	234,234	29,204	72,109	18.9370
2040	811.61	306,135	38,275	95,423	25.4496
2045	987.45	400,106	50,097	126,104	34.2024
2050	1,201.38	522,823	65,341	166,576	45.9651
2055	1,461.67	683,438	85,879	220,375	61.7733
2060	1,778.34	893,229	112,830	292,331	83.0182
2065	2,163.62	1,167,413	148,217	387,724	111.5686
Alternative III:					
1987	100.00	17,778	1,878	4,279	1.0000
1988	105.42	18,855	1,950	4,522	1.0806
1989	111.79	19,887	2,066	4,833	1.1811
1990	118.15	20,963	2,178	5,072	1.2960
1991	124.09	22,036	2,357	5,526	1.4153
1992	130.29	23,309	2,536	5,942	1.5352
1993	136.81	24,630	2,730	6,376	1.6557
1994	143.65	26,068	2,932	6,842	1.7804
1995	150.83	27,585	3,147	7,342	1.9091
1996	158.37	29,240	3,377	7,875	2.0411
2000	192.50	36,815	4,378	10,264	2.6363
2005	245.69	49,401	5,994	14,184	3.6299
2010	313.57	66,110	8,062	19,300	4.9979
2015	400.20	88,470	10,857	25,845	6.8816
2020	510.77	118,383	13,861	34,154	9.4753
2025	651.89	158,436	17,999	44,853	13.0484
2030	831.99	212,023	23,329	59,081	17.9835
2035	1,061.85	283,735	30,355	77,988	24.7339
2040	1,355.22	379,701	39,365	102,655	34.0560
2045	1,729.65	508,126	50,766	134,237	46.8815
2050	2,207.52	679,987	65,215	174,940	64.5646
2055	2,817.41	909,976	83,825	228,120	88.8986
2060	3,595.81	1,217,754	108,086	298,347	122.4040
2065	4,589.27	1,629,629	139,363	390,324	168.5374

[1] The CPI used to adjust OASDI benefits is the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), as defined by the Bureau of Labor Statistics, Department of Labor. The values shown are adjusted by dividing the average of the 12 monthly values of the CPI by the analogous value for 1987, and multiplying the result by 100, thereby initializing the CPI at 100 for 1987.

[2] The "SSA average wage index" is defined in section 215(i)(1)(G) of the Social Security Act; it is used in the calculations of initial benefits and the automatic adjustment of the contribution and benefit base and other wage-indexed program amounts.

[3] Taxable payroll consists of total earnings subject to OASDI contribution rates, adjusted to include deemed wages based on military service and to reflect the lower effective contribution rates (compared to the combined employee-employer rate) which apply to tips and multiple-employer "excess wages."

[4] The compound interest-rate factor is based on the average of the assumed annual interest rates for special public-debt obligations issuable to the trust funds in the 12 months of the year, under each alternative. Each can be used to convert dollar values between July 1, 1987, and July 1 of the year shown.

Appendix

This appendix presents OASDI and HI tax income and outgo as estimated based on the four alternatives. The following table shows the tax income and outgo estimated based on the four alternatives for the OASDI, HI, and combined OASDI and HI programs. These items are defined in the footnotes to the table. The form of this table is similar to that of table 2 in the main part of this note in order to facilitate constant-dollar calculations that may be of interest to economists and financial analysts.

Appendix Table.—Estimated OASDI, HI, and Combined OASDI and HI Tax Income and Outgo by Alternative, Calendar Years 1987-2065

[In billions]

Calendar year	OASDI		HI		OASDI and HI	
	Tax income[1]	Outgo[2]	Tax income[3]	Outgo[4]	Tax income	Outgo
Alternative I:						
1987	$226.8	$209.2	$58.8	$51.6	$285.6	$260.7
1988	258.2	220.5	62.8	55.6	321.0	276.1
1989	277.3	232.2	67.3	60.7	344.6	292.9
1990	302.2	245.4	71.6	66.1	373.8	311.4
1991	321.4	257.8	76.1	71.0	397.5	328.8
1992	339.7	269.2	80.5	75.6	420.1	344.8
1993	357.1	281.0	84.6	80.2	441.6	361.2
1994	375.0	293.3	88.8	84.9	463.8	378.2
1995	393.6	306.2	93.2	89.6	486.8	395.8
1996	413.5	319.6	97.9	94.3	511.4	413.9
2000	513.2	364.5	122.5	116.5	635.7	481.0
2005	663.4	442.2	160.0	148.9	823.4	591.1
2010	846.4	583.6	205.3	188.4	1,051.7	772.0
2015	1,071.2	817.5	260.3	239.4	1,331.5	1,056.9
2020	1,348.5	1,153.3	328.3	315.9	1,676.8	1,469.2
2025	1,700.7	1,575.3	414.8	429.1	2,115.5	2,004.4
2030	2,163.0	2,057.0	528.7	582.7	2,691.7	2,639.7
2035	2,765.1	2,581.8	677.9	778.7	3,443.0	3,360.5
2040	3,533.7	3,169.1	870.1	1,022.2	4,403.8	4,191.3
2045	4,516.3	3,911.9	1,116.6	1,319.1	5,632.9	5,231.0
2050	5,779.3	4,901.9	1,435.3	1,693.6	7,214.6	6,595.6
2055	7,416.3	6,198.0	1,848.9	2,174.7	9,265.2	8,372.7
2060	9,529.0	7,850.6	2,384.6	2,802.4	11,913.6	10,653.0
2065	12,239.5	10,000.8	3,074.8	3,615.6	15,314.3	13,616.3
Alternative II-A:						
1987	226.0	209.7	58.5	51.6	284.6	261.2
1988	255.4	222.2	62.2	55.8	317.6	278.0
1989	273.9	235.7	66.6	61.5	340.4	297.2
1990	299.1	251.0	70.9	67.8	370.0	318.8
1991	318.3	265.4	75.5	74.1	393.8	339.5
1992	336.1	280.0	80.2	80.6	416.2	360.5
1993	357.5	295.4	84.8	87.4	442.2	382.8
1994	377.8	311.7	89.5	94.6	467.3	406.2
1995	398.9	328.8	94.5	102.1	493.4	430.9
1996	421.7	348.8	99.8	109.7	521.5	458.5
2000	529.7	409.5	125.9	144.9	655.6	554.4
2005	696.7	515.3	166.4	203.3	863.0	718.6
2010	903.9	700.4	216.9	282.9	1,120.8	983.3
2015	1,159.7	1,005.1	278.4	398.9	1,438.2	1,404.0
2020	1,475.8	1,452.0	354.5	573.0	1,830.3	2,025.1
2025	1,875.0	2,036.8	450.7	827.4	2,325.7	2,864.2
2030	2,398.4	2,738.8	576.6	1,166.5	2,975.0	3,905.3
2035	3,076.5	3,545.9	741.2	1,582.7	3,817.6	5,128.7
2040	3,939.7	4,479.8	952.2	2,079.8	4,892.0	6,559.6
2045	5,038.4	5,675.1	1,220.9	2,682.1	6,259.3	8,357.3
2050	6,433.5	7,267.1	1,566.0	3,435.9	7,999.4	10,703.0
2055	8,238.2	9,344.1	2,012.5	4,400.5	10,250.7	13,744.6
2060	10,567.0	11,973.9	2,590.8	5,860.4	13,157.8	17,834.3
2065	13,553.4	15,362.2	3,333.1	7,284.5	16,886.5	22,646.8
Alternative II-B:						
1987	$224.5	$209.7	$58.1	$51.6	$282.7	$261.2
1988	252.1	222.6	61.6	55.8	313.8	278.4
1989	269.1	238.1	65.6	61.7	334.7	299.8
1990	295.2	255.1	70.0	68.5	365.3	323.5
1991	315.5	273.2	75.0	75.5	390.6	348.7
1992	337.5	291.1	80.2	82.7	417.7	373.8
1993	359.7	309.5	85.4	90.3	445.1	399.8
1994	382.8	328.9	90.8	98.5	473.6	427.4
1995	407.0	349.4	96.6	107.2	503.6	456.6
1996	433.1	371.1	102.7	116.0	535.8	487.1
2000	554.5	450.3	131.2	157.5	685.7	607.7
2005	748.9	583.5	176.9	227.4	925.8	810.9
2010	996.2	813.3	236.0	326.4	1,232.2	1,139.7
2015	1,310.2	1,195.6	310.3	471.8	1,620.5	1,667.4
2020	1,708.3	1,770.8	404.4	694.0	2,112.7	2,464.8
2025	2,225.4	2,550.7	526.3	1,026.3	2,751.8	3,577.0
2030	2,914.2	3,526.5	689.3	1,481.8	3,603.6	5,008.2
2035	3,829.6	4,691.5	907.3	2,059.2	4,736.9	6,750.7
2040	5,024.0	6,085.4	1,193.8	2,771.2	6,217.8	8,856.6
2045	6,582.6	7,898.6	1,567.5	3,609.8	8,150.1	11,508.4
2050	8,613.3	10,354.2	2,058.8	4,801.2	10,672.1	15,155.4
2055	11,289.3	13,628.4	2,709.2	6,297.5	13,998.5	19,925.9
2060	14,831.7	17,888.9	3,571.2	8,293.9	18,402.8	26,182.8
2065	19,484.5	23,505.6	4,704.6	10,930.9	24,189.0	34,436.5
Alternative III:						
1987	219.8	210.4	56.7	51.6	276.6	261.9
1988	240.3	224.3	58.9	56.0	299.2	280.4
1989	257.7	242.9	62.9	62.7	320.6	305.6
1990	277.2	264.9	65.7	70.0	342.9	334.9
1991	298.0	286.9	71.0	78.7	369.1	365.6
1992	321.2	308.2	76.4	88.3	397.6	396.5
1993	345.6	330.9	82.1	99.1	427.7	430.0
1994	371.4	355.2	88.1	110.8	459.4	466.0
1995	398.5	380.9	94.5	123.7	493.0	504.7
1996	427.8	408.4	101.3	137.3	529.1	545.7
2000	556.5	508.5	130.6	202.4	687.2	710.9
2005	765.7	676.5	178.5	323.4	944.2	999.9
2010	1,035.1	966.4	241.4	515.1	1,276.6	1,481.5
2015	1,376.8	1,455.8	320.3	824.4	1,697.0	2,280.2
2020	1,808.1	2,212.9	419.2	1,311.9	2,227.3	3,524.8
2025	2,361.0	3,287.0	545.0	2,046.4	2,906.0	5,333.4
2030	3,088.6	4,703.7	709.7	3,039.3	3,798.3	7,743.0
2035	4,042.3	6,496.6	926.6	4,244.0	4,968.9	10,740.6
2040	5,269.1	8,749.3	1,206.0	5,650.1	6,475.1	14,399.4
2045	6,826.2	11,734.5	1,560.7	7,354.0	8,386.8	19,088.5
2050	8,802.3	15,803.8	2,014.2	9,479.7	10,816.5	25,283.6
2055	11,355.9	21,229.4	2,602.0	12,206.1	13,957.9	33,435.5
2060	14,677.8	28,205.9	3,370.3	15,797.2	18,048.0	44,003.1
2065	18,969.4	37,262.1	4,365.8	20,471.3	23,335.3	57,733.4

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[1] OASDI tax income consists of net OASDI contributions and income from taxation of benefits, on a cash basis.

[2] OASDI outgo consists of benefit payments, administrative expenses, net transfers from the OASI and DI Trust Funds to the Railroad Retirement program under the financial-interchange provisions, payments for vocational rehabilitation services for disabled beneficiaries, and special monthly payments to certain uninsured persons who either attained age 72 before 1968 or who attained age 72 after 1967 and have at least three quarters of coverage for each year after 1966 and before the year of attainment of age 72. The OASDI outgo is on a cash basis.

[3] HI tax income consists of HI contributions (including contributions from railroad employment) and payments from the general fund of the Treasury for contributions on deemed wage credits for military service. The HI income is on an incurred basis.

[4] HI outgo consists of HI outlays for insured beneficiaries and administrative expenses. The HI outgo is on an incurred basis.

SENATE FINANCE COMMITTEE, FOR USE BY SEN. PACKWOOD

ALTERNATIVE I (MOST OPTIMISTIC)

PROJECTED ANNUAL AND ACCUMULATED SOCIAL SECURITY SURPLUSES

(in billions)

YEAR	ANNUAL SURPLUS	ACCUMULATED SURPLUS
1986*	$ 4.7*	$ 46.9*
1987	$ 23.0	$ 69.9
1988	$ 46.3	$ 116.2
1989	$ 55.3	$ 171.5
1990	$ 72.2	$ 243.7
1991	$ 83.5	$ 327.2
1992	$ 94.9	$ 422.1
1993	$ 104.7	$ 526.8
1994	$ 114.8	$ 641.6
1995	$ 125.7	$ 767.3
1996	$ 138.1	$ 905.4
2000	$ 226.5	$ 1,670.2
2005	$ 371.1	$ 3,224.1
2010	$ 523.6	$ 6,549.9
2015	$ 658.8	$ 8,587.9
2020	$ 779.8	$12,249.6
2025	$ 818.2	$16,457.3
2030	$1,150.6	$21,776.8
2035	$1,557.1	$28,658.6

* Actual figures

Source: Social Security Administration

SENATE FINANCE COMMITTEE, FOR USE BY SEN. PACKWOOD

ALTERNATIVE II-A (SECOND MOST OPTIMISTIC)

PROJECTED ANNUAL AND ACCUMULATED SOCIAL SECURITY SURPLUSES

(in billions)

YEAR	ANNUAL SURPLUS	ACCUMULATED SURPLUS
1986*	$ 4.7*	$ 46.9*
1987	$ 21.6	$ 68.5
1988	$ 40.7	$ 109.7
1989	$ 48.9	$ 158.0
1990	$ 62.8	$ 220.8
1991	$ 72.0	$ 292.8
1992	$ 81.5	$ 374.4
1993	$ 90.1	$ 464.4
1994	$ 98.8	$ 563.2
1995	$108.0	$ 671.3
1996	$118.4	$ 789.7
2000	$194.6	$ 1441.1
2005	$323.8	$ 2792.3
2010	$452.2	$ 4818.0
2015	$538.5	$ 7360.7
2020	$557.0	$10132.8
2025	$517.4	$12820.3
2030	$471.1	$15253.0
2035	$466.8	$17569.5

* Actual figures

Source: Social Security Administration

SENATE FINANCE COMMITTEE, FOR USE BY SEN. PACKWOOD

ALTERNATIVE II-B (SECOND MOST PESSIMISTIC)

PROJECTED ANNUAL AND ACCUMULATED SOCIAL SECURITY SURPLUSES

(in billions)

YEAR	ANNUAL SURPLUS	ACCUMULATED SURPLUS
1986*	$ 4.7*	$ 46.9*
1987	$ 20.1	$ 67.0
1988	$ 36.8	$ 103.8
1989	$ 41.4	$ 145.2
1990	$ 54.3	$ 199.6
1991	$ 61.0	$ 260.5
1992	$ 69.6	$ 330.2
1993	$ 78.1	$ 408.4
1994	$ 86.8	$ 495.2
1995	$ 96.0	$ 591.2
1996	$106.2	$ 697.3
2000	$177.1	$ 1289.3
2005	$306.2	$ 2545.4
2010	$434.4	$ 4488.6
2015	$506.3	$ 6909.4
2020	$476.2	$ 9392.3
2025	$334.1	$11393.6
2030	$112.3	$12411.1
2035	-$143.1	$12213.2

* Actual figures

Source: Social Security Administration

SENATE FINANCE COMMITTEE, FOR USE BY SEN. PACKWOOD

ALTERNATIVE III (MOST PESSIMISTIC)

PROJECTED ANNUAL AND ACCUMULATED SOCIAL SECURITY SURPLUSES

(in billions)

YEAR	ANNUAL SURPLUS	ACCUMULATED SURPLUS
1986*	$ 4.7*	$ 46.9*
1987	$ 14.6	$ 61.5
1988	$ 22.1	$ 83.6
1989	$ 23.3	$ 106.9
1990	$ 22.7	$ 129.6
1991	$ 23.6	$ 153.2
1992	$ 27.6	$ 180.8
1993	$ 31.4	$ 212.2
1994	$ 35.2	$ 247.4
1995	$ 39.0	$ 286.4
1996	$ 43.2	$ 329.6
2000	$ 84.8	$ 598.0
2005	$ 162.9	$ 1,247.8
2010	$ 203.7	$ 2,237.4
2015	$ 109.7	$ 3,046.0
2020	$ -249.3	$ 2,893.1
2025	$ 0.0	$ 0.0

* Actual figures

Source: Social Security Administration

Senator SYMMS. Thank you very much, Mr. Chairman.

Senator SARBANES. Senator Melcher.

Senator MELCHER. Chairman Greenspan, I think your testimony is very good reading.

You say we're still sailing on uncharted waters and are facing adjustments that have no precedent in our recent history. I've been saying that for a couple of years also.

Beyond that, I like your testimony because you point out that we're engaged in production in competition in the world markets. That's nothing new for commodity groups. That's been the case for a long time, whether it's minerals or energy or agriculture.

I like the fact that you emphasize what the Federal Open Market Committee decided in February. You're Chairman of that Open Market Committee. There are seven of you that are appointed by the President and confirmed by the Senate. Who are these other five?

Mr. GREENSPAN. These are, as you know, Senator, presidents of the Federal Reserve Banks.

Senator MELCHER. Who are they?

Mr. GREENSPAN. The individuals?

Senator MELCHER. Yes.

Mr. GREENSPAN. You want a listing of the 12 Federal Reserve——

Senator MELCHER. The five that are not appointed by the President and confirmed by the Senate, who are they?

Mr. GREENSPAN. One is the president of the Federal Reserve Bank of New York.

Senator MELCHER. Who is always on it.

Mr. GREENSPAN. Who is always on it.

Senator MELCHER. That's Corrigan?

Mr. GREENSPAN. That's Corrigan. Also the president of the Federal Reserve Bank of Chicago, Si Keehn. We're in the process now of changing the membership of the Committee. Five presidents are members of the Federal Open Market Committee and four serve on a rotating basis. The president of the Federal Reserve Bank of New York is the Vice Chairman of the Federal Open Market Committee and is a permanent member.

Senator MELCHER. By tradition?

Mr. GREENSPAN. By law.

Senator MELCHER. By law?

Mr. GREENSPAN. Yes, by law.

Senator MELCHER. And that's Corrigan. Who are the other four? Has anybody got their names at hand?

Mr. GREENSPAN. The problem is we're in the process of changing at the present time. I will submit that.

Senator MELCHER. Who was it at the February meeting? Who were the four others at the February meeting?

Mr. GREENSPAN. Who were the voting members? Si Keehn from Chicago, Ed Boehne from Philadelphia was one, Bob Boykin of Dallas, I think maybe Tom Meltzer from St. Louis. I will check who was on a voting basis at that particular point.

The reason that I'm unsure is that that number is continuously rotating at any particular time and only 5 of the 12 Federal Reserve Bank presidents can vote in any particular meeting. Membership rotates with a special sequence for the Cleveland and Chicago Federal Reserve presidents alternating in one seat and the remainder going in a slightly different cycle.

Senator **Melcher**. Well, their vote counts just as much as yours, does it not?

Mr. **Greenspan**. Yes, they do.

Senator **Melcher**. Yet you're a little bit fuzzy on who voted in February or can't recall?

Mr. **Greenspan**. What I don't remember is which of the presidents were on the committee at that particular point.

Senator **Melcher**. That's what I meant.

Mr. **Greenspan**. But all of them are involved in the discussions, all 12 members.

Senator **Melcher**. At the meeting in February, I think you voted to have a growth of M2 and M3 between 4 and 8 percent for this year. Now what effect is that going to have on commodities?

Mr. **Greenspan**. Commodity prices?

Senator **Melcher**. Yes.

Mr. **Greenspan**. To the extent that the monetary aggregates affect the aggregate level of inflation or price change in the United States, they will have a corresponding effect on all of the major commodities directly and indirectly as a consequence of that.

Senator **Melcher**. Would it mean that agricultural commodity prices will be higher or lower?

Mr. **Greenspan**. It's more likely to affect finished goods prices than it is agricultural prices which tend to be very much more affected by relative supply and demand than by monetary aggregates.

Senator **Melcher**. Then if one of our major problems is exporting products from the United States, since the United States dominates in productivity of agricultural commodities, just what can the Open Market Committee or the Board of Governors do about gaining more exports of agricultural commodities?

Mr. **Greenspan**. Well, I don't think that the Federal Open Market Committee itself is a functioning vehicle to do that. I think much more to the point is the trade practices and trade policies of other countries and that is more in the area of what our GATT relationships are and what our overall bilateral agreements between nations, are, such as our pending agreement with the Canadians.

Senator **Melcher**. What about the 4 to 8 percent growth in money supply, won't that cheapen the dollar or do you think it will remain rather stable?

Mr. **Greenspan**. Our judgment is that the dollar looks stable and we hope it will continue in that direction. Certainly the 4 to 8 percent is not inconsistent with a stable dollar.

Senator **Melcher**. Do you think it will be stable?

Mr. **Greenspan**. That's my expectation.

Senator **Melcher**. Your expectation for 1988 is the dollar will be stable?

Mr. **Greenspan**. Let me be more exact. I would say that a stable dollar is not inconsistent with the 4 to 8 percent range.

Senator **Melcher**. Well, obviously, the decline in the dollar does help export products from the United States, does it not?

Mr. **Greenspan**. Only to the extent that the decline in the dollar does not reflect itself in higher domestic costs. What we have seen is that the decline in the dollar did not fully work its way through in higher costs in the United States because productivity was offsetting in many of the domestic areas. If a decline in the dollar engenders inflation within the United States, then it does not assist us in our export accounts because our costs would go up.

Incidentally, Senator, we just figured out who the voting members of the Federal Open Market Committee were in February. As I said before, it was President Corrigan of New York, President Boehne of Philadelphia, President Boykin of the Dallas Bank, President Keehn of the Chicago Bank, and it was President Stern of Minneapolis—not President Meltzer of St. Louis—who was on the FOMC in February.

Senator **Melcher**. Thank you, Mr. Chairman.

Senator **Sarbanes**. Mr. Chairman, we very much appreciate your testimony today. As always, it's been forthright and very helpful to the committee and we thank you for this appearance. The committee stands adjourned.

[Whereupon, at 11:05 a.m., the committee adjourned, subject to the call of the Chair.]

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